DEVELOPMENT STRATEGY

1971 - 1980

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Mauritius.

MINISTRY OF ECONOMIC PLANNING AND DEVELOPMENT

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FOREWORD

It is generally recognised that the development of the less developed countries requires a restructuring of the fabric of social and economic life. Political freedom is a pre-requisite for the adoption of policies which will bring about the required changes in the structure of the society. Immediately after the attainment of independence on March 12, 1968, the Government, therefore, decided to prepare a comprehensive plan for economic and social development of the country. The preparation of such a plan requires a realistic assessment of the available potential as well as adequate planning capacity.

A number of studies on the assessment of resources, such as the FAO/UNDP Land and Water Resources Survey, have been completed, and the planning capacity has been strengthened with the help of the IBRD and UNDP. It therefore became possible for Government to commit itself to publish a comprehensive plan by May, 1971.

As a first exercise in the planning process the Ministry of Economic Planning and Development has prepared this paper on the "Development Strategy 1971-1980". Government has decided to make this paper public and invite constructive comments from all who are interested in the development of the country. Government will take such comments into consideration in the further elaboration of the Plan.

Comments on this document may be sent in writing to the Director of Planning, Ministry of Economic Planning and Development, Government House, Port Louis.

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INTRODUCTION

The paper is divided into four parts as follows:-

Part I reviews the structure of the economy from the point of view of bringing out the problems that planning for future development of Mauritius must tackle.

Part II explains the approach to planning in the light of the choice of the major objective. The point is made that the major objective and hence the major criterion for judging future development of Mauritius, particularly in the 1970's, has to be employment creation rather than the traditional approach, i.e. planning for a certain growth rate in the gross product, assuming employment will automatically be created in the process. In fact, the employment approach ensures a more equitable distribution of incomes created from development. This approach has wide policy implications: the important ones - income v/s employment, employment v/s productivity, productivity v/s wages - are discussed in the paper Above all, employment is to be considered the main criterion in the choice of projects and resource allocation.

Part III discusses the development strategy in the light of the approach recommended for planning. A great part of the discussion is on the strategy for the commodity producing and invisible export earning sectors of the economy. These are the productive sectors, the development of which will have to be carefully planned. These will induce development in other sectors.

Part IV explains the action programme taking three time horizons: the perspective for the 1970's, the Four Year Plan 1971-75 and an immediate action programme, the T.P.T. programme. The T.P.T. programme can be started from the beginning of 1971, can employ about 12,000 full time workers productively and promises increases in employment to 15 - 20,000 from the second year.

From the point of view of the successful implementation of the Four Year Plan, considerable importance is being attached to the T.P.T. programme as unless the very serious unemployment problem, now existing, is solved to a certain extent, it would be difficult to create a climate in which the Four Year Plan could be launched with a reasonable degree of success.

This paper forms part of a comprehensive plan which is to be produced by the Ministry of Economic Planning and Development by May 1971. Considerably more work is in hand towards the elaboration of the plan.

I. THE STRUCTURE OF THE ECONOMY

In order to bring out the problems that development planning in Mauritius must tackle it is necessary in the first place, to examine the present structure of the economy.

(a) Production Structure

Sugar accounts for more than 60% of a commodity production of about Rs 500 million a year in Mauritius. In 1966-1969 the sugar crop averaged 615,000 metric tons (tel quel). 60% of the crop was sold in the United Kingdom under the Commonwealth Sugar Agreement at around Rs. 630 per metric ton, f.o.b. Port Louis, 30% was sold in other markets, principally Canada, at unregulated prices, 5% was sold on the domestic market and 3% was sold in the United States. The average f.o.b. value of exports to all destinations over the last three years was Rs. 540 per metric ton. At f.o.b. prices the value of the crop (including molasses) has been Rs. 340 million on the average.

The gross value of all other crops grown on the Island is around Rs. 45 million a year, of livestock products Rs. 20 million, and of the lagoon and deep sea fisheries Rs. 5 million. Value added in manufacturing is about Rs. 65 million, of which Rs. 25 million in the food, drink and tobacco industries (excluding sugar milling and the manufacture of tea) and Rs. 40 million in other manufacturing industries, including the "artisanat".

(b) Land Use, Crop Production and Labour

Of the total area of Mauritius of 442,000 arpents,* 245,000 arpents are under cultivation. Below the Central Uplands which are generally too cold and wet and where there is insufficient sunshine for cane cultivation, the gross acreage under cultivation is three-quarters of the total land area of 315,000 arpents. The net area under sugarcane (excluding rock heaps, farm roads etc.) is a little over 200,000 arpents.

* 1 arpent = 1.043 acres = 0.422 ha.

The total acreage owned by the sugar estates is 190 000 arpents. Twenty two sugar estates have some 150,000 arpents (gross) under cultivation in holdings of 1,000 to over 10,000 arpents. 90,000 arpents are owned by small and medium sized agricultural producers of which two-thirds is in holdings of less than 25 arpents.

Up to the mid-sixties the estates were increasing the acreage under cane up to a total net acreage of 120,000 arpents (including land cultivated by Metayers). The estates are also millers and derive their profits largely from sugar milling rather than from cane cultivation as such. The estates can push their marginal costs in cane cultivation up substantially in order to secure additional quantities of sugarcane to mill.

The fact that the net acreage under cane cultivation on the estates has levelled off at 120,000 arpents in the mid-sixties would suggest, therefore that the practical limits of the acreage that can be put under sugarcane have just about been reached at least in so far as further land development depends on investment within the individual enterprises.

The 90 000 arpents owned by medium and smaller producers are all under cultivation since this is land which has been purchased for this purpose. The acreage under sugarcane by these producers has fluctuated around 65 000 arpents in the 1960's

While land has become a limiting factor to production on the Island in the last twenty years labour has ceased to be a limiting factor to production in what throughout the eighteenth and nineteenth centuries was a labour hungry economy. While the acreage under cane cultivation between the late fifties and the late sixties increased by 5%, the total labour force on the Island increased by about 30%.

The marked change in the relative scarcities of land and labour has not resulted in any significant shift in production from sugarcane to more high value crops. The acreage under tea has more than doubled in the sixties, but tea, which is grown on the Central Uplands, is largely non-competitive with cane for land use. To produce 17 tons of sugar, selling for Rs. 10,000 f.o.b. Port Louis, requires about five

arpents and two men (at any rate during the harvesting season). There has been no significant shift into crops requiring fewer acres and more men for the same total value of output.

Sugar is in any case a rather high value crop in terms of value per acre. The fact that marginal costs in sugar milling are low means that the opportunity cost of shifting out of cane cultivation is substantially higher than the average net returns from growing cane. This is an incentive to the estates to stay in cane cultivation, since they derive their profit from having larger quantities of cane to mill. For the economy as a whole, the marginal value of sugar produced is somewhat lower than it is for the individual mills, since sugar is exported at various prices some of which bear no relation to costs of production in cane sugar exporting countries and which have, at times, been substantially lower than the negotiated price under the Commonwealth Sugar Agreement. In recent years the effect of the various statutory and other deductions from the f.o.b. sales value and the agreed share-out of the ex-Syndicate price between millers and outgrowers has in fact been that the price of cane paid to outgrowers has been just about equal to the marginal value of sugar exported from Mauritius.

Wide fluctuations in yields from season to season due to climatic factors make it difficult to discern any trends in output per acre in crop production except over very long periods. In terms of sugar yields are on average 3½ tons of sugar per arpent harvested for the Island as a whole. It may be supposed that the same factors which have induced the sugar estates to bring practically all the available land under cane cultivation have also been an incentive to pushing up yields per acre to the technically and economically practical limits, at least under the conditions prevailing in Mauritius, which have led to the adoption of eight or more ratoon crops as a standard practice.

Yields of sugar cane are directly correlated with the size of holdings and are one third lower, on the whole, on holdings of less than 100 arpents than on the large estates. One of the reasons for

this is that smaller holdings add up to over 30,000 separate management units and the variation in yields is greater and the average for the group therefore lower than on the twenty two estates.

Table 1 - Sugarcane Yields per arpent 1962-1967

	Area Harvested	%	Cane Yields	% of Yields on Estates
	Thousand arpents		M. tons/ arpent	
Estates*	100.5	52	32.1	100
Planters with 200-700 arpents	18.1	9	29.3	90
Planters with 100-200 arpents	4.4	2	24.6	77
Planters with less than 100 arpents	64.4	33	21.8	67
Metayers**	6.9	4	17.9	57
Total	194.3	100	28.4	87

Source: F.N. Coombes: "Regards sur les Realisations des Planteurs de Canne a Sucre" 1969

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* estates owned by sugar mills ranging from 1 000 to 11,000 arpents

** tenants leasing land from estates

(c) Livestock

Apart from a recently established commercial broiler industry, a few commercial pig breeders and some beef and dairy herds, livestock production in Mauritius is essentially a part-time-occupation. For cattle owners, for instance, income from dairying accounts on average for one-eighth of total household incomes. Returns to labour in livestock production are among the lowest for any economic activity and the output of the industry is dependent on a supply of labour with no

alternative employment opportunities. The structure of the livestock industry has therefore afforded no scope for an expansion of production in this sector.

(d) Fishing

A deep sea fishing industry has developed in Mauritius in the sixties catching white fish for the local market supplementing the supply of fresh fish caught in the lagoons around the Island. The high cost of catching white fish by hand lines (as compared with trawling, which is not practical in this part of the Indian Ocean) would seem to preclude the development of an export market for white fish except to Reunion, where labour costs and hence fishing costs are substantially higher than in Mauritius. The pelagic fisheries in the Western Indian Ocean (mostly tuna) have been exploited by Japanese, Chinese (Taiwan), Malayan and South Korean vessels, with the trade in the hands of a Japanese firm, which has established its main base for this area in Mauritius. Mauritian enterprises are now beginning to participate in the tuna fisheries and in fish canning.

The lagoon fisheries around Mauritius employ some 5,500 registered fishermen. Output is limited by supplies of fish, as these are being exploited at present; the potential of the lagoon fisheries could probably be increased by more rigidly controlled fishing, but this would not increase the number of fishermen who could profitably be engaged in this sector.

(e) Forestry

The economic importance of forestry in Mauritius, apart from its considerable importance for the water regime of the Island is in providing poles and fuel wood and to a lesser extent timber for local consumption. A considerable replanting programme has been undertaken in the sixties mostly of Central American pines, Japanese cedar and, in the lower areas, Australian eucalyptus and casuarina. The lack of a clear land use policy has meant that the benefits of much of the investment undertaken have been dissipated.

Indigenous timber species have been crowded out by exotics and offer no scope for commercial exploitation. The indigenous fibre plant,

Furcraea Gigantea, is, however, still being exploited. Exports of aloe fibre (Mauritius hemp) ceased in 1957, and the fibre has been used locally in the manufacture of sacks, mostly for the sugar industry. Lately exports, in the form of sacks, have made a come-back, amounting to Rs. 2½ million in 1969 and ranking fourth after sugar, molasses and tea.

(f) Food, Drinks and Tobacco

The tobacco and drinks industries cater almost exclusively for the domestic market. Exports of alcohol virtually ceased in 1953 since there has been no price advantage in exporting alcohol compared with molasses Local production of cigarettes (at ex-factory or import prices excluding import and excise duties) supplies 90% of the domestic market and local production of beer, country wines, colonial spirits and soft bottled drinks supplies 80% of the domestic market.

(g) Manufacturing

Other manufacturing industries are also almost wholly geared to the domestic market, the significant exceptions being micro-jewels for watches and fibre sacks, though industries producing mainly for the local market have also been exporting to Reunion and Madagascar when this has been permitted.

While the growth in crop production over the last couple of decades has been limited by technical that is to say resource factors, manufacturing industries geared to supplying local needs have only had a limited growth potential because of the small size of the local market.

(h) Other Income Generating Sectors

Apart from commodity production, the other income generating sectors in the economy are the invisible exports. Other economic activities either supply inputs to the productive sectors or are made possible by the income generated in those sectors. This generalisation does not explain the dynamism of larger economies, where domestic income generation can take place in other sectors of the economy as well, but explains the lack of dynamism in the present structure of the

economy of Mauritius. In spite of an apparent growth in gross domestic product which, in statistical terms, has at least kept pace with the growth in the labour force, there has been only a negligible increase in commodity output.

In recent years there has been a dramatic increase in invisible exports, mostly as the result of the increased use of Port Louis by merchant shipping following the closure of the Suez Canal in 1967, the development of the tuna fisheries in the Western Indian Ocean in the sixties and the growth in air travel and tourism. Gross invisible exports, excluding investment income, have amounted to Rs. 90 million a year in 1967-69, compared with Rs. 55 million in 1966 and Rs. 20 million in the late fifties. While there has been a dramatic growth in these sectors, their contribution to the economy, allowing for the fact that the import content in these activities, e.g., bunkering, is high, is still modest.

(i) Wages and Productivity

Mauritius is largely a wage economy, with three quarters of the gainfully occupied labour force in paid employment. In sugar cane 70-75% of the output is on large estates or holdings producing more than 1,000 tons of cane in a season. The rather static level of sugar and other commodity production in the last decade has not therefore meant that the growing labour force has been absorbed in commodity production through a decline in labour productivity, as has been the case in some other countries where land has become a limiting factor to production, but where agricultural production mainly takes place on peasant farms. The contrary has, in fact, been the case.

Sugar cane in Mauritius is comparatively labour intensive, in that half the costs of a ton of cane are labour costs (at current wage rates). Higher levels of output depend, however, largely on inputs other than labour, such as agricultural machinery for land preparation, irrigation equipment, herbicides and fertilisers, though a higher output requires more labour in cutting and loading. While labour has become relatively more abundant, it has not, in a wage economy, become any cheaper, at least for the larger employers. At the very time that

more labour was coming onto the market than was being absorbed in commodity production there has been a marked improvement in wage rates. Total payments to employees increased by 50% between the late fifties and the late sixties, rather more than the growth in the labour force, let alone the growth in employment.

The net result of these factors has been that labour productivity in sugar cane production would appear to have increased by one third over the past decade. In 1969, when the crop was 15% larger than ten years previously, employment on estates and on holdings of over 25 arpents was 15% lower at the height of the harvesting season at 55,000 persons. Total employment, including self-employment in crop production at the time of the cane harvest is around 70,000 persons, 30% of the total labour force, and labour productivity around Rs. 2,500 a year on average.

With family enterprises accounting for only a quarter of total crop production, the growth in the total labour force has led to some decline in earnings in this sector not so much due to higher labour inputs in relation to the volume of output as to reduced employment opportunities outside the enterprise. A marked drop in labour productivity has taken place in the lagoon fisheries, where the same quantity of fish is being caught by more fishermen.

If output in agriculture has failed to expand appreciably in the last ten to fifteen years due to technical limitations to production, it has not afforded increased employment as the labour force has increased. Labour ceased to be more or less a free good at the very time that it was becoming relatively plentiful in relation to other factors of production. Nor has any appreciable employment been created in the manufacturing sector. In sugar milling labour productivity is high by Mauritian standards - Rs. 15,000 a year - and has in fact been increasing, as production has been concentrated in fewer and larger units. A high labour productivity (that is to say the value added divided by the number of persons employed) would also appear to be characteristic of the tobacco and drinks industries - apparently around Rs. 12,000 a year. Outside the food, tobacco and drinks industries

labour productivity in manufacturing (value added per person employed) is modest, Rs. 4,500 a year on average in enterprises employing ten or more persons. As these have, with the exceptions noted above, been almost exclusively geared to meeting the requirements of the domestic market, the scope of their activities has remained limited and they only afford employment to some 7,000 persons. A further 9,000 persons are employed in artisanal enterprises outside the food and drinks industries with an average labour productivity which does not exceed Rs. 100 a month.

(j) National Income

Viewed against the growing need for employment and incomes, the situation of Mauritius is one which lacks, within its present economic structure, the dynamism for further economic growth. National income at factor cost would appear to have just about kept pace at current prices with the increase in population over the last fifteen years. This is explained, however, not by the real growth in the economy, but by the fact that the available income has, largely as a result of government policies, been spread around more. Including such inputs as transport and electricity commodity production would appear to have increased at current prices by some 16% over the last ten years, of which one third would be accounted for by a moderate improvement in export prices for sugar. The main increase in national income has occurred in public administration and the service sector which has increased by two thirds over the past ten years.

Government (central and local) has directly and indirectly, created employment and incomes; the number of persons employed in the public service has increased two and a half times to 30,000 in the last ten years; government consumption expenditure has more than doubled and social security payments have trebled. This has resulted in a redistribution of income rather than in any increase in real output.

Increased government expenditure has been financed by an increase in indirect taxes which have doubled over the last ten years. Revenue from direct taxes has remained static with a 50% increase in taxes on individuals barely compensating for a fall in receipts from taxes on corporation.

The total of wages and salaries and the earnings of people working on their own account have increased by one third over the last ten years at current prices. Deducting indirect taxes the increase has been 20%, that is to say less than the increase in the labour force. Average earnings excluding indirect taxes amount to Rs. 2,000 a year per head of the economically active population. After-tax profits and other earnings from property have remained fairly constant overall in relation to the value of commodity production that is to say they have been increasing at a rate of 1% a year.

The increase in output and the redistribution of incomes that have taken place as a result of higher wage rates and increased government spending have meant that the earnings of the labour force per head have remained more or less constant overall over the last ten years at current prices. The increase in prices of consumer goods has been about 2% a year. There has thus been some deterioration in earnings in real terms, in spite of government measures to assist the poorer sections of the population. In spite of the creation of additional jobs in public administration and the service sector and measures to make the national income stretch further, this has not however been sufficient to provide employment and incomes for the growing labour force.

(k) Employment Situation

As much of the economic activity on the Island can be considered sub-marginal, the concept of employment in the present Mauritian context is somewhat indeterminate. The following description of the present employment situation must therefore be considered to be descriptive rather than analytical.

At the height of the crop season in 1969 the sugar industry - estates and plantations of more than 25 arpents - employed 50,000 persons on the agricultural side. A further 2,500 people were employed on private tea estates and 2,000 employed full time on the Government tea programme. Some 20,000 smallholders and people working for smallholders are estimated to be engaged more or less full time in crop production, making a total employment in crop production of between 70,000 and 75,000 persons. Some 2,000 people are engaged in forestry

and fibre production. Livestock production is almost wholly a part-time occupation, but fishing would appear to be the main occupation of some 4,000 people.

The sugar mills employ over 6,000 people on the factory side and the tea factories 400. Bakeries and other establishments processing food for the domestic market employ 1,000 people, a further 1,000 are employed in the bottled drinks industries (alcoholic and soft drinks) and 400 in tobacco manufacturing. Other manufacturing establishments employing ten or more persons have a total workforce of 7,000. The number of people engaged in small-scale manufacturing enterprises or repair shops outside the food and drink industries is about 9,000.

Activity in the construction industry has been declining in recent years. The amount of building and repair work carried out in 1969 would suggest a work force of 13,000 in the industry on a full-time basis. Other economic infrastructure activities, mostly road transport and the docks, probably employ about 15,000 people.

Employment in the service sector is even more difficult to ascertain, but putting all the available information together, the position would broadly speaking appear to be that there are some 20,000 people engaged in import and export, wholesale and retail trade, 15,000 in education, health and other service establishments, 15,000 in public administration and related services and 15,000 in personal services such as housemaids and hairdressers.

Total employment (including self-employment), at the time of the year when employment is at its peak, would therefore appear to be around 195,000. This excludes the so called "relief/development workers". The concept of the economically active population cannot, in the current pattern of employment in Mauritius, be given a precise definition: with so much part-time and barely remunerative employment, any estimate of the degree of unemployment and under-employment of the economically active population would hardly be meaningful. That there is a great deal of unemployment and sub-marginal employment is a matter of observation.

II. APPROACH TO PLANNING

(a) The foregoing analysis of the structure of the economy points out:-

(i) Agriculture

(1) sugar will continue to be the dominant crop,

(2) concentration of land ownership combined with efficient farm management and intensive research in sugar cane production helped increase labour productivity,

(3) technical limits to production in agriculture have nearly been reached, particularly from the individual firm's point of view,

(4) public expenditure on infrastructure can bring some more land under cultivation and also increase production from small holders' lands now comparatively less productive; (infrastructure includes irrigation, credit, material inputs, technical help and adequate organization),

(5) a radical change in the cropping pattern is difficult to achieve in the short-run; only limited diversification is possible.

(6) a need for maintaining the research effort to increase cane yields (cane production must become very efficient) as well as intensifying research on alternative labour intensive/high value crops,

(7) expansion of tea and some other crops and livestock provide immediate prospects,

(8) the history of the settlement of the Island excludes any prospect of traditional subsistence farming.

(ii) Manufacturing

(1) a near limit has been reached in industry based only on import substitution,

(2) there is only limited capacity to expand for export present lines of production.

(iii) Employment

(1) with population pressures and the lack of dynamism in the economy, unemployment has been increasing and has reached serious dimensions,

(2) action to relieve the unemployment situation has changed the relationship between productive and service sectors,

(3) some job creation has been unproductive,

(4) Government policy has helped bring about a better redistribution of income.

(iv) Construction activity has been erratic, mainly influenced by external factors like house construction due to devastation by cyclones; not strictly induced by productive sectors.

(v) Income

(1) though recently there has been some increase in income due to manufacturing and expansion of invisible exports, if we disregard 1963 it would appear that there is no upward trend in per caput income. For more than a decade any change in per caput income is mainly related to fluctuations in sugar crop results,

(2) the relatively high statistical per caput income of about Rs. 1,050 is not indicative of a corresponding well-being of the generality of the population; large variations in individual incomes, as is true in every developing country, are concealed behind the average.

This is the picture of a stagnant economy which lacks dynamism to solve the problem of unemployment. A situation has been reached where lack of job opportunities prevents a higher standard of living for a large proportion of the population than that guaranteed by the meagre unemployment relief, including 'relief work'. Also the will to work among those employed and who see it is possible to live with less work or even without working is being affected. This can have far reaching consequences for future social and economic growth. Though it is difficult to quantify the extent of prevailing unemployment, it is clear that unemployment has become the most crucial social, political and economic issue. However, due to the extended family system, where there is always a hope to be fed by the family, and due to the large size of the families where many unemployed can survive by living off their relations, the unemployment, although its magnitude is already considerable, has not so far been as seriously felt. This safety mechanism, however, may not be as helpful in the future as family bonds are becoming weak due to the pressure of population, and unemployment is on the increase as the present structure of the economy does not have the capacity or dynamism to absorb even the regular increase in labour force.

Socially and psychologically, increasing unemployment has also had a damaging effect on the healthy growth of a democratic society. In a situation of chronic unemployment the bargaining power of workers is weakened and it is difficult to protect their interests as there is always someone to fill the vacancy. The lack of countervailing power due to a shortage of work opportunities demoralizes the work force, with serious consequences on the development of the human resources of the country.

Unemployment is in fact only a symptom of a much bigger problem. A large proportion of the population is struggling for meagre incomes well below subsistence level even though the per caput income of about Rs. 1,050 is higher than in most developing countries, notwithstanding the re-distribution of income which has been stretched at the cost of productive activity, disturbing the balance between productive and non-productive sectors. Unemployment, income

distribution, etc. are all part of the broad structure of the economy which is the outcome of a complex set of political, social and economic forces.

Furthermore, lack of local raw materials and mineral resources, scarcity of land, vagaries of weather, high density and rapid increase in population and the small size of the market combine together to make traditional development activities difficult. Structural and institutional changes are of fundamental importance to bring about development.

(b) Basic Principles

Experience with development elsewhere shows that fundamental structural and institutional problems cannot be solved by ideological approaches. In the Mauritian context the paramount consideration has to be problem solving. In other words, scientific cause and effect relationships must be applied to find solutions to problems rather than relying on ideological dictates. The requirements of social and political stability, which are fundamental to growth and development, demand realism.

The State therefore has the responsibility for guiding the economy with social and welfare orientation so as to reduce poverty and give equal opportunity to all for education, health and bargaining power in the society.

A non-doctrinaire problem solving approach to planning broadly leads to the creation of a system of production and distribution where private and public sector activities are complementary to each other, leading towards the achievement of declared objectives. It neither means a rapid allocative control of investment expenditure and supplies of a centrally planned economic system, nor the 'laissez-faire' private enterprise system wherein Government does not interfere in private production decisions of entrepreneurs and in the market price system. It is a combination of planned and spontaneous development.

Planning efforts must be directed at providing a framework which will increase employment, reduce poverty and expand opportunities for individuals' social and economic growth.

(c) Population and Labour Force

Since the end of the arrival of indentured labour from India some ninety years ago up to the last war the population of Mauritius has remained fairly static at below 400,000. As a result of a sharp drop in adult as well as infant and child mortality, mainly due to the eradication of malaria, and a higher than usual level of fertility which, in a wage economy, is to some extent influenced by the general economic climate at the time, the population of Mauritius has doubled in the last twenty five years to 815,000 in 1970.

Since 1965 however there has been a dramatic decline in fertility, resulting in a drop in the gross reproduction rate from 3 to 2 in the space of five years. Fertility rates will need to be brought down further quite rapidly. With the success in Family Planning there is no reason to expect, as was feared in prognostications made ten years ago, that the population situation in the Island will prove catastrophic.

But, the much larger post-war generation has already begun swelling the labour force at a faster rate than the increase in output, in particular output in the primary income generating sectors of the economy, that is to say commodity production and invisible exports. In 1970 the number of adult males on the Island aged 20 and over is 190,000. By 1980 the number of adult males will have increased by 40% to 270,000. Moreover, with a rather younger population, birth rates will continue to be quite high for some time, even if age-specific fertility rates continue to fall quite rapidly, as is to be anticipated.

Trends in birth and survival rates over the last twenty five years are also resulting in marked changes in the age composition of the labour force. While the total adult population will increase by 40% over the next ten years, the number of men in their twenties will increase by 65% and will, by 1980, constitute 40% of the adult male population. This means that investment now in the education of children and the training of young people will have a large and rapid effect on the skills of the labour force as a whole.

of the 655,000 people in Mauritius who will be aged 15 or over by 1980, it is expected that 325,000 will be in the labour force, that is to say they will be in paid employment, if the jobs are available, or will be primarily working on their own account or as part of a family enterprise.

Estimated labour participation rates by the end of the decade are partly a projection of what would appear to be the present pattern and partly a matter of policy. In particular a marked drop in labour participation rates by teenagers with the extension of educational and training facilities, a sharp drop in the proportion of men over the age of retirement still at work and some increase in labour participation rates by women, in view of the increased employment opportunities for women, are expected to result from the structural changes envisaged in the economy.

Table 2 - Age Structure and Labour Force

	1969 Population	1980 Population	Estimated 1980 Labour Participation Rates	1980 Labour Force
	Thous.		%	Thous.
Males				
0 - 14	170	191	-	-
15 - 19	49	60	40	24
20 - 29	59	103		98
30 - 39	41	62	95	59
40 - 49	38	39		37
50 - 59	26	35	75	26
20 - 59	164	239	92	220
60 +	20	29	15	4
Total males	403	519		248
Females				
0 - 14	166	187		
15 - 19	49	58		
20 - 60	159	236	24	77
60 +	26	33		
Total Females	400	514		77
Total Population	803	1033		325

While the number of men between the ages of 20 and 59 will be 75,000 greater by 1980 and the total economically active population perhaps larger by a greater number (allowing for nearly one quarter of the women to be economically active if the employment opportunities are available), the gap between the labour force ten years hence and the present number of employment opportunities is of the order of 130,000. The challenge to planning in Mauritius is to create 130,000 additional job opportunities during the 1970's. The backlog of unemployment and the rate of expansion of the labour force set the task. As such, development objectives and strategy have of necessity to be largely employment oriented.

(d) National Income and Employment

Planning in general so far has mainly been directed towards a narrowly conceived single goal of maximising national income. It has been assumed that the maximisation of national income in the process creates more jobs, and incomes once produced will automatically trickle through to farmers and labourers. Experience with development has shown that this assumption is obviously wrong; national incomes in many countries have grown quite rapidly, but unemployment, as well as inequalities of incomes, have been increasing. National income or even income per head in itself also cannot be taken as the dominant indicator of the wellbeing of a society. National income in itself tells nothing about income distribution or the extent of unemployment and poverty, relative levels of prices or many other aspects which affect the level of living and general welfare of the people. Planning must, therefore, drop the implicit assumption that employment will be created and poverty eliminated automatically by increases in national income. A high growth rate objective may mean more income per se now and far more employment later. But this implies heavy social and political costs which Mauritius can ill afford. On the other hand, a full employment strategy will, of course, mean a high growth rate, but employment must be treated as a specific objective. One does not have to make a choice between a fast growth rate and a rapid increase in employment. Both must go side by side in that productive employment will create output and incomes. Creation of incomes as such may

not create employment.

If an over-all high rate of growth is taken as the major objective, priorities will be confused and false alternatives posed.

Economic development in Mauritius will be meaningless unless it means the creation of employment opportunities, that is incomes, for the working population. Statistically measurable rates of economic growth can take place, and are taking place in many low income countries, in excess of the rates of increase in the population or the labour force, without resulting in additional jobs or additional incomes. Economic development means nothing, except as a figure in some statistical publication, if it means that an increasing proportion of the population of working age is without work and without the means or with wholly inadequate means to maintain their families. In charting the economic development path to be followed it is important at the outset to be quite clear on the objectives that are to be reached. What matters is the type of economic development that takes place, and not just how much.

The overriding objective of economic development in Mauritius must be, if it is to have any meaning for the people of Mauritius, employment opportunities, that is to say incomes from employment (including self-employment), for the entire labour force, allowing for a certain degree of temporary unemployment as people change their jobs and labour requirements expand or contract in particular sectors and particular enterprises. If there is more employment, that is productive employment, there will necessarily be more output, that is to say more incomes; if there is more production, it does not necessarily follow that there will be more employment or that the gains of development will be adequately shared among the population.

If there is a high rate of increase in national income, it is theoretically possible to redistribute that income to those who are not directly benefitting from the increases in income that are taking place. This possibility usually remains somewhat theoretical. Nor is it desirable that a substantial section of people capable of participating in economic activities should derive incomes from these

activities without participating in them.

Economic growth, in the sense of an increase in the total output of goods and services, cannot, in itself, be considered as an objective of Government economic policy. Nor would this be a sensible long term development strategy for Mauritius, even if trying to achieve the maximum rates of growth in the output of goods and services (subject to balance of payments constraints) may make economic sense in other countries.

Mauritius is a small island and its economy is pushing against the present limits in its exploitation of the known natural resources. Its one underutilised economic asset is its labour force. This labour force has the basic intelligence, educational standards and manual dexterity to acquire the skills needed in the modern economy. What is needed is management, organization and administration to utilize the available labour force for productive work.

(e) Employment, Productivity and Wages

It follows from the objective of developing the economy to provide employment opportunities for the entire labour force, that increases in productivity, that is, in output per person actually in employment, must take second place. This means adopting economic policies which will encourage, and channelling public expenditure into, investment which will result, directly or indirectly, in more employment rather than in more output per person already in employment, and discouraging investment which results in higher profits simply through the substitution of labour by capital. It is not the volume of production which is a measure of economic development in any meaningful sense, but the benefits which the people of the country derive from that production.

In selling on the world market the comparative advantage of Mauritius is that labour costs are a fraction of those in industrialised countries while at the same time the adaptability and the ability of the labour force to acquire modern skills is comparable to that in industrialised countries. Taking a longer term view, both these factors will work increasingly to the advantage of Mauritius,

with labour costs in more highly industrialised countries rising more steeply, probably in relative but certainly in absolute terms than in Mauritius, and with the Mauritian labour force rapidly becoming younger, better educated and more highly trained.

Increasing employment does not mean spending more time on unnecessary jobs. While increases in labour productivity must take second place, it would be impractical, in an economy whose future depends on its competitive position in the world economy as a whole, to stand in the way of such increases where a reduction in the labour force in a particular activity results in a substantial increase in total output and not just in the replacement of labour by capital. To what extent new investment or the use of new methods which reduce labour requirements result in an increased output for the economy as a whole and to what extent it is simply a use of capital, which is cheaper to the enterprise concerned, than of labour can be easily determined.

Technological developments and the integration of the Mauritian economy with increasingly capital intensive sectors of the economies of highly industrialised countries, for instance in transportation, will make increases in labour productivity in certain sectors of the economy inescapable. To increase the costs to the economy of Mauritius by resisting such developments is as unhelpful as it is to increase the costs to the economy by encouraging the setting up of capital intensive industries in Mauritius to produce for the home market. The important thing is that there should be sufficient dynamism in the economy to enable the labour made redundant by increases in productivity which are necessary if the economy is to remain competitive to find employment in other sectors of the economy or other enterprises where labour requirements are growing.

If increases in labour productivity are to be a secondary consideration, this means that earnings per person employed cannot be expected to increase substantially. The benefits to the labour force from an economic development path signposted to employment creation is that there will be work and incomes for all rather than that there

will be rapid increases in earnings by those who happen to be in paid employment or who happen to have opportunities for gainful self-employment.

Mauritius has now moved out of the era, though only rather recently, in which labour could for practical purposes be considered to be a free good. There are no further economic gains to be made by pushing up the price of labour through administrative action in order to compel management to make a more efficient use of that labour. There is also little economic advantage for a developing economy in low wages as such. The important thing for the investor in Mauritius is not whether his labour costs are high or low, but how they compare with labour costs elsewhere, relative to the comparability of the skills of that labour force. And labour costs are a matter not only of the wages paid but also of the reliability of that labour force.

Since the earnings of labour (including those of people working on their own account) are the main element in the earnings of Mauritian factors of production, it is in the interests of the economy as a whole that earnings per person employed, and not only the total number of people in gainful employment, should increase, by at least as much as labour productivity. This can, on the whole, in an economy whose development will depend on a large number of initiatives taken by private firms and individuals, best be left as a matter of bargaining by the parties concerned. There will certainly be a need for Government to protect the interests of that section of the labour force whose bargaining strength is so weak that they would be liable to be exploited. There is little likelihood that particular sections of organised labour will drive up labour costs in their sector of the economy to such an extent as either to discourage further investment altogether or to push investment into unnecessarily capital intensive processes.

Economic development in Mauritius is thus interpreted as meaning returns to labour. It is what people have to live on that matters, not the country's position in some international league tables. The objective of economic development policy to maximise returns to labour,

that is to say to the labour force as a whole, does not mean that employers of labour engaged in commercial activities are expected to do anything other than to make profits. An enterprise in these sectors, whether Mauritian or foreign owned, which is unprofitable to its owners is unlikely to be of any benefit to the economy as a whole. The converse, however, does not hold true. If an enterprise is profitable to its owners, it does not follow that this will benefit the economy, that is to say the people of Mauritius.

While it would slow down economic development to encumber investment decisions by commercial firms and private individuals by considerations other than the profits to be made from that investment, apart from compliance with the regulations to protect the health and safety of their work force and the surrounding population, measures to encourage new investment, from inside the country or from abroad, must be determined by their contribution to the economy in the creation of additional jobs and additional incomes.

(f) The Limiting Factor

It is important that the economy generates saving as well as incomes for consumption. Both in the public and private sectors the investible funds which can be mobilized to finance development will influence the total amount of funds available for investment on the Island. While domestic resource mobilization will influence, it will not determine the total amount of investment that takes place. Capital and finance though extremely important, are surely not a limiting factor to development in Mauritius. What is difficult is how to shape institutional arrangements and administrative procedures to make full use of available knowledge and to motivate people to do what is needed. How fast the problems facing Mauritius can be solved will depend upon the capacity of the people and the Government to organise productive activity. The limit to development will come from this capacity. The organizational, administrative and management capacity will have to be increased as a matter of deliberate policy.

III. DEVELOPMENT STRATEGY

(a) Summary

To achieve the major objective of creating 130,000 new job opportunities by 1980 will require marked structural changes in the economy. Employment opportunities will need to be created in the first instance in the income generating sectors of the economy, that is in commodity production and invisible exports, if additional employment is to mean additional incomes and full participation by the economically active labour force and not only spreading incomes available to the economy further.

In crop production, which has been the mainstay of the economy, output is pushing against the technical limits of production. In all there are some 25,000 arpents not under cultivation or forestry plantations which could be brought under cultivation, mostly in areas not suitable for sugarcane, but also in drier areas, which could be planted to sugarcane or other crops with additional irrigation. The main increase in crop production must, however, come from a more intensive use of land already under cultivation, mainly through increased and more efficient irrigation in the drier areas and through land improvement and improved cultural practices on the smaller holdings.

It is considered feasible for the volume of crop production to increase by 40% over the next decade. It would be realistic to allow for an increase in employment in crop production almost proportional to the increase in output, as the increases in production which are feasible are necessarily rather labour intensive. Allowing for an increase in labour productivity of only 1% a year (value added in crop production, excluding sugar milling and tea manufacturing per person employed) from the present level of Rs 2,700 a year, this would offer scope for 20,000 of the additional employment opportunities that would need to be created in the next decade.

Allowing for the marked consumer preference for fresh milk over dried milk powder and for fresh meat over frozen meat and

allowing for the comparative advantage in raising non-land using animals as far as production for the domestic market is concerned, a technically more efficient livestock industry should be able to supply two-thirds of the domestic market for livestock products by 1980. Allowing for the same level of labour productivity as in crop production, this would provide full time employment opportunities for a further 15,000 of the additional employment that will need to be created in this period.

If there is to be a sufficient increase in output in commodity production to generate economic activity throughout the economy to provide employment for the entire labour force at levels of labour productivity, and hence earnings, which are not less than present levels of productivity, the main increase in employment must take place in the manufacturing sector. In view of the restricted market in Mauritius for manufactured goods, in relation to the employment opportunities that will need to be created in this sector, and the capital intensive nature of production of a wide range of manufactured goods onsumed in Mauritius, this increase in output must take place in the production for export of manufactured goods with a high labour content or in labour intensive processes in the production chain, where Mauritius has a clear comparative advantage in an efficient and adaptable and comparatively low cost labour force, combined with the advantage of a sophisticated business community.

The increase in employment that will be needed in manufacturing establishments employing ten or more persons is of the order of 35,000 over the next ten years. This increase in employment and output in manufacturing industries which is a necessary, indeed the key element in the economic development of Mauritius in the 1970's is staggering only in relation to the present size of the manufacturing sector. Apart from sugar mills and tea factories, the manufacturing industry, producing mainly for the export market consists of two factories with combined sales of less than Rs 5 million, though several more factories are already being erected.

Allowing for an increase of two-thirds in employment in small

manufacturing establishments, the artisanat, over ten years, total employment in manufacturing industries (other than the processing of agricultural products for export) would amount to almost 20% of the labour force. Assuming a labour productivity, on average, in the larger manufacturing establishments of Rs 6,600 a year (excluding the agricultural processing industries) this would give a total value added in manufacturing (large establishments) by 1980 of Rs 300 million or a gross output of the order of Rs 630 million, twice the present level of sales of sugar.

This is not a particularly startling figure in relation to the markets for products which could be produced in Mauritius at competitive prices, the management ability in Mauritius or which would be available to Mauritius, or the amount of capital required to finance investment in what would be labour intensive industries. Of the availability and suitability of the labour force for creating a sector of the economy which would virtually be a new departure in the economic development of Mauritius there is no question whatever.

TABLE 3

TABLE 3

Comparative Structure of Employment 1969 and 1980

Activities	1969		1980		Increase 1969-1980	
	number employed	% of total	number employed	% of total	in Number	in %
Agriculture (inc. livestock, fisheries, forestry)	76,100	39.0%	109,000	33.5%	+ 32,900	+ 43
Mining and Quarrying	400	0.2%	1,000	0.3%	+ 600	+150
Manufacturing	25,000	12.8%	67,000	20.6%	+ 42,000	+168
(sugar and tea)	(6,600)	3.4%	(6,600)	2.0%	(-)	-
(other industries)	(18,400)	9.4%	(60,400)	18.6%	(+ 42,000)	+228
Construction and P.W.	13,000	6.7%	30,000	9.2%	+ 17,000	+131
Electricity, water, etc.	1,300	0.6%	3,000	0.9%	+ 1,700	+131
Trade	19,800	10.2%	28,000	8.6%	+ 8,200	+ 41
Transport and communications, Harbour, P & T	13,400	6.9%	20,000	6.2%	+ 6,600	+ 49
Services (public and private banking, education, health, personal and other)	32,100	16.5%	50,000	15.4%	+ 17,900	+ 56
Central and Local Government general administration	13,900	7.1%	17,000	5.3%	+ 3,100	+ 22
TOTAL EMPLOYED	195,000	100.0%	325,000	100.0%	+130,000	+ 67

If employment in commodity production increases by 75,000 over the next ten years, this will generate other economic activity, particularly in construction, resulting in an additional 55,000 employment opportunities in other sectors of the economy.

Of the growth in output envisaged, an increase of nearly 5% a year would result from increased employment, if anything approaching full employment is to be achieved during the Second Development Decade. The structural changes envisaged would mean that employment in the manufacturing industries (excluding the processing of agricultural products for export) would need to increase by more than 11% a year, with more than average increases, of around 8% a year, in the sectors most directly affected by increased manufacturing activity, such as electricity and other public utilities, construction and mining and quarrying. Employment in agriculture would, because of the technical limitations to increased production, only grow by 3% a year.

Some increases in labour productivity are technically inescapable, particularly in transport and communications, while in certain other sectors, for instance in retail trade, parts of the service sector and in fishing, there would need to be increases in labour productivity, if employment in these sectors is to provide even minimal incomes for the labour force engaged in these sectors. Overall, increased productivity is expected to account for an increase in output of a little over 2% a year. This will be a matter of policy, at least until such time as the full employment objective is close to being reached.

The implied rate of growth in gross domestic product at factor cost (at 1970 prices) to meet the objective of creating employment opportunities for the entire labour force is about 7% a year over the next decade. With the expansion in the manufacturing sector largely taking place in what by Mauritian standards can be considered to be large establishments, the rate of growth in manufacturing (other than the processing of agricultural products for export) will be more than proportional to the increase in employment. Including sugar milling and the manufacture of tea the increase in manufacturing output is expected to be of the order of 11% a year. This is not untypical

for a developing country and should not place undue strains on the economy in the way of management, the development of skills and the building up of the necessary economic infrastructure.

Agricultural production can be expected to grow by only 4% a year (at 1970 prices). Output in other sectors would be more or less proportional to the overall rate of growth of the economy with higher rates of growth in invisible exports such as tourism. The policy of developing the income generating sectors of the economy implies a substantially lower than average growth rate of the order of 2.5% a year in public administration.

TABLE 4

TABLE 4

Employment, Productivity and GDP (at Factor Cost) 1980

Activities	Employment			Productivity per Person (Rs.)			GDP (at factor cost) (Million Rs.)		
	1969	1980	growth rate	1969+	1980	growth rate	1969+	1980	growth rate
Agriculture (crop production, livestock, forestry, fibre and fisheries)	76,100	109,000	3.3%	2,710	2,910	0.7%	206	317	4.0%
Mining and Quarrying	400	1,000	8.7%	2,500	3,000	1.7%	1	3	10.5%
Manufacturing	25,000	67,000	9.4%	5,280	6,420	1.8%	132	430	11.3%
agriculture produce processing	(6,600)	(6,600)	-	(11,820)	(17,270)	(3.5%)	(78)	(114)	(3.5%)
other processing industries	(18,400)	(60,400)	(11.4%)	(2,940)	(5,240)	(5.4%)	(54)	(316)	(17.4%)
large establishments	(9,000)	(44,400)	(15.6%)	(5,000)	(6,600)	(2.5%)			
small establishments	(9,400)	(16,000)	(5.0%)	(1,200)	(1,500)	(2.1%)			
Construction & P.W.	13,000	30,000	7.9%	3,920	4,450	1.2%	51	133	9.2%
Electricity, water and other public utilities	1,300	3,000	7.9%	23,080	23,080	-	30	69	7.9%
Transport & Communications	13,400	20,000	3.7%	7,610	11,000	3.4%	102	220	7.2%
Trade	19,800	28,000	3.2%	4,540	7,070	4.1%	90	198	7.4%
Services (incl. health, education, banking, insurance, personal, etc.)	32,100	50,000	4.1%	6,040	8,160	2.7%	(186	347	5.9%
Tourism							8	60	20.1%
Public general administration	13,900	17,000	1.8%	3,160	3,410	0.7%	44	58	2.5%
	195,000	325,000	4.7%	4,360	5,650	2.4%	850	1835	7.3%

+ Average 1967-1969

(b) Crop Production

Of the 315,000 arpents of land in the coastal areas and the Plaines Wilhems, the gross acreage under cultivation is 230,000 arpents (73%). A further 5,000 arpents can be brought under cultivation on the West Coast through providing additional irrigation water and through the more efficient use of the present supply. Elsewhere below the Central Uplands only some 4,000 arpents not at present under cultivation or in forest plantation would appear to be cultivable.

On the Central Uplands one quarter of the 60,000 arpents of land, excluding mountains, is under cultivation and a further quarter under forest plantations. Of the remaining 30,000 arpents, 13,000 arpents are on slopes of less than 13% where cultivation is not precluded by extreme rockiness.

In addition to the 10,000 arpents already planted to tea a further 15,000 arpents of forest and scrub land, mostly in the Central Uplands, have been demarcated for tea development. Some 5,000 arpents in all could probably be put under rice cultivation, much of it marshy land not at present under cultivation.

The main increase in crop production must, however, come from a more extensive use of the 220,000 arpents (net crop acreage) already under cultivation and through a more extensive use of cane fallows between planting cycles and cane interrows. In order to make the fullest use of the Island's limited resources for crop production it will be necessary to make fuller and more effective use of its water resources. The FAO Land and Water Resources Survey team (1965 - 1969) considered that, for the cultivable area of 210,000 arpents (net) below the Central Uplands to reach its maximum productive potential, 70,000 arpents would need to be brought under irrigation. Of this 35,000 arpents are irrigated at present, but on much of this land the use of water and irrigation practices would need to be improved if the full agricultural potential of these areas is to be realised.

The total supply of water at source for irrigation in 1966 was 235 million cubic metres a year, equivalent to a constant flow of 7½ cubic metres a second. Domestic water supplies amounted to

a further 50 million cubic metres a year. Allowing for the expected increase in domestic and industrial requirements over the next fifteen years, the volume of water at source to be supplied to carry out the irrigation programme indicated above, would need to rise to 570 million cubic metres a year, equivalent to a constant flow of 18 cubic metres* a second.

Apart from irrigation the main factors in increasing yields per arpent are land improvement and improved cultural practices on the smaller holdings. In terms of sugar, yields are, on average, 3½ tons of sugar per arpent harvested for the Island as a whole. Including value added in sugar milling, output per arpent, excluding non-factor costs, is Rs1,100 on average, at the present price structure of sugar for Mauritius.

Yields of sugar cane are one-third lower, on the whole, on holdings of less than 100 arpents than on the large estates. Smaller holdings consist of over 30,000 separate management units and the variation in yield is greater, and the average for the group therefore lower, than on the 22 estates. The main reasons for the lower yields on the smaller holdings are, however, a lesser use of irrigation in the drier areas, less adequate land preparation, longer planting cycles, with a progressive decline in yields in successive ratoons and a less rapid introduction of higher yielding and disease resistent varieties, less adequate weeding and a lower fertilizer usage.

All the same, a standard of cultivation resulting in yields which are, on the whole, two-thirds those achieved on estates which are technically as efficient as any in the world is quite high; there are not the immediate gains to be made in output from quite simple improvements, as there are on peasant holdings in many countries of Africa and even Asia. It seems probable that, on the smaller as well as the larger holdings, levels of productivity per acre are close to those which can be achieved, in the present state of technical knowledge, within the financial and technical resources of the individual enterprise. Increased productivity on the smaller holdings will require additional investment in the public sector, in the way of

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* $1m^3$ = 36 cubic feet

agricultural machinery for land development, the provision of small scale irrigation facilities (apart from investment in the two major irrigation projects which will for the most part necessarily be in the public sector), partly publicly financed replanting programmes and the provision of medium and long term credit.

The most realistic estimate of the technically and economically feasible increase in cane production over the 1970's is one million metric tons, resulting in a sugar crop of 770,000 metric tons in an average season by the end of the decade and of 835,000 metric tons in a normal, that is to say cyclone free, season. This would be an increase of 2% a year over present levels of production and a total increase over ten years equivalent to 2% of the present size of the world export market.

Assuming that the additional output would sell on average at £32-10-0 per long ton f.o.b., Port Louis, the f.o.b. value of the sugar crop would increase by 1980 to Rs 400 million, compared with around Rs 340 million at the present time.

Tea production can be expected to increase from the planting programme scheduled for the next six years to 30 million lbs by 1980. At present Mauritius tea is selling on average at an equivalent c.i.f. London price of 3/9d a lb. At 1970 prices the f.o.b. value of the crop would be Rs 60 million by 1980 compared with Rs 15 million at present.

The total value of the crops other than sugar and tea grown on the Island, but excluding tree crops, is Rs 30 million a year at producer prices (valuing the tobacco crop at c.i.f. prices for equivalent grades). There are in all some 14,000 arpents available in plantations of more than 100 arpents for cropping during the fallow period between uprooting and replanting sugarcane and as interline crops in virgin and ratoon canes. Taking the availability of cane lands for growing additional crops on the smaller holdings as being approximately 60% that of the estates and large farms (because of the longer cane planting cycle and shorter fallow periods), the total

acreage of cane land available for other crops would be equivalent to some 17,000 arpents. Allowing for some increase in the acreage brought under cultivation for crops such as rice and for some marginal shifts out of cane cultivation to more high value crops, as export opportunities develop and the domestic market for fresh vegetables expands and as improved irrigation and land improvement shift the conditions of supply for smaller producers, the output of crops other than sugar and tea can certainly be doubled over the next ten years to Rs 60 million a year.

Total crop production can then be expected to increase, at 1970 f.o.b. prices, from less than Rs 400 million a year to over Rs 500 million by 1980.

In terms of value added, including value added in processing, the output of sugar is expected to increase by 20%, at 1970 prices, over the next ten years. At present sugar accounts for nearly 90% of crop production (in terms of value added) in an average season. By 1980 the relative share of sugar in total crop production (at 1970 prices) will have fallen to 75% and its share of total agricultural production, including forestry and fibre and livestock products, from 80% to two thirds. Again in terms of value added, sugar accounts for over 60% of total commodity production on the Island at present. With the more rapid increase in the output of other crops and livestock products and the substantial increase in manufacturing activity which is planned to take place, the importance of sugar in total commodity production is expected to drop to less than 40% by the end of the decade.

Increases in crop production can also be achieved by shifting from sugar cane to more high value crops, which generally also require higher labour inputs per arpent. These possibilities are not, however, unlimited. There are small, but rapidly growing exports of fresh ginger, high priced fresh fruits and vegetables and cut flowers. Because of the distances over which they have to be transported to export markets and, in the case of perishable or easily damaged products, because of the high cost of transportation, these are products with a high value

in relation to their weight. As is indicated by recent export performance there is certainly scope for further expansion in sales, though, because of price consideration, markets are somewhat limited.

High value crops, in terms of value per arpent, grown for the domestic market are mostly fresh vegetables and fruits. Domestic production of vegetables accounts for 70% of the total supply. There is scope for increasing this proportion somewhat, particularly in potatoes and onions, and the market will expand with the increase in population, though the demand for vegetables in Mauritius would seem to be little influenced by changes in consumer income.

The main staples of consumption in Mauritius - rice, wheat and the lower priced vegetable oils - are, on the whole, low value crops in terms of value per arpent, though a certain amount of rice can be grown on land which is unsuitable or less suitable for sugarcane. As far as production for the domestic market is concerned, there are, in fact, far greater gains to be made in increasing output and employment in livestock production than in crop production. The know-how required to grow high value crops, and to sell these in distant markets, is expensive. Production and marketing need to be as efficient as in alternative sources of supply and it is costly to acquire this for crops involving only small acreages. An impressive amount of know-how on the production side is being acquired quite rapidly. It is important that this know-how should be further developed for those crops which show promise with regard to their agricultural potential and at the same time seem likely to find profitable outlets on export markets or the home market, without, in the latter case, pushing up consumer prices through undue protection from imports, except, where necessary, in the initial stages of the introduction of a new crop.

This is necessary in order to enable agricultural producers to take advantage of any new opportunities that are offered on world markets and to provide them with the flexibility they will need to adjust to longer term changes in relative prices or costs. It would be unprofitable, however, to plan now for changes in the pattern of crop production on the basis of speculative views that may be taken

of the price structure for the Mauritius sugar crop in the latter part of the decade. Investment that will be needed to increase sugarcane production is not, with some minor adjustments, such as the type of irrigation equipment used, specific to cane any more than to other annual, crops, that may be grown in the same area. The increase in cane production of the order which is envisaged, or even feasible, would not require additional milling capacity to be installed though the concentration of milling capacity into fewer and larger units will need to continue, in order to reduce production costs for the Island's main crop.

In the planting cycles which have been found most suitable and economic for the Island, some 20,000 arpents are replanted to cane, or should be replanted, every year. It would be possible, therefore, to shift very rapidly out of cane production at any time, should there be a sudden long term deterioration in market prospects for Mauritius sugar or should the quotas which can be negotiated under various international agreements fall far short of current levels of production. It would be difficult, however, with all the efforts being made and proposed for developing the techniques of production and for finding markets for alternative crops, to switch any extensive acreages out of sugarcane into crops with a comparable value per acre (net of non-factor costs) as the present marginal value of sugarcane. Any marked or sudden deterioration in prices for Mauritius sugar could not fail to have a serious adverse effect on the economic development of the Island.

The market for the Mauritius sugar crop is not determined by impersonal and hostile forces but, in the main, by the governments of the countries of Western Europe and North America in which the crop is sold. The agreements reached on prices and quantities to be sold are made in the context of decisions which have a wider implication than the interests of Mauritius alone, but in a context in which the vital importance of returns from this crop to the economy of Mauritius is not a mere cypher. Since, from the point of view of the governments of importing countries, there are producer interests as well as consumer

interests to protect, and since exporting countries have shown themselves capable of concerting measures to prevent prices being dragged well below costs of production, the view that the sugar market will crash at the end of 1974 has little to substantiate it.

The possibility of somewhat better prices for the Mauritius sugar crop or larger quotas in the higher priced markets is not to be ruled out. Prices in the European Economic Community are 80% and prices on the U.S. market 50% above the average prices for the Mauritius crop in recent years. As an increase of 30% in the average price of sugar received by Mauritius is equal to the entire increase in the value of crop production (at to-day's prices) which is considered feasible over the whole of the next ten years, efforts to negotiate better prices for the Mauritius sugar crop are an important, indeed essential, component of economic development strategy for the next decade.

(c) Land

The structure of land holding in Mauritius is polarised, with, at one end, a little over half the area under cultivation farmed by twenty two estates cultivating between 1,000 and 11,000 arpents each and, at the other end, over 25,000 smallholders cultivating 20% of the acreage under crops in holdings of around 1½ arpents and for the most part even less; forty large planters and tea estates with holdings of some hundreds of arpents farm 10% of the cultivated acreage and 2,500 small and medium sized farmers, with holdings ranging from five arpents upwards, farm 20% of the land under cultivation.

The size of the estates is determined not by the economies of scale which are to be obtained in cane cultivation, but by those in sugar milling; hence the amalgamations that have brought the existing units to their present size. The managerial ability to organise a large agricultural labour force in the production of commercial crops is not, in the present situation, a factor in achieving high levels of output, nor is the ownership of (by Mauritian standards) large tracts of land in itself a commercial advantage for the estates themselves. Even if labour is inexpensive in Mauritius, it has ceased to be so cheap that it can virtually be ignored as a cost of production.

At present wage rates the cost of labour is about half the cost of a ton of cane. The estates do not make their profits by converting labour and other inputs into sugarcane in their fields, but by converting cane into sugar in their mills.

The technical and managerial ability which is available to the estates as substantial employers and which is not available to the smaller producers enables them to achieve yields per arpent which are 40% higher on average, than thoseobtained in the medium sized or smaller holdings. By controlling larger acreages investment opportunities are open to them to raise agricultural productivity which are not open to smaller producers or which would be relatively more costly. The fact that the estates produce not just sugarcane but sugar affords them the incentive to push production up to the level at which marginal costs are more or less equal to marginal returns for the economy as a whole, an incentive which cannot be extended or which it would be complicated to extend to outgrowers within the present structure of production. The effect of the ownership of slightly more than half the cane acreage by a few large estates is, however, that the technical and managerial ability which is available to the estates is not by and large available to the sugar industry as a whole.

This gap between the technical know-how and organisational capacity which is at the disposal of agriculture in Mauritius and that which is available to the smaller producer cannot be filled by making some of the production aids which are found within the large enterprises available to small scale and scattered producers through a government department. The technical and economic advice and even the credit which can significantly enlarge the scope for increasing agricultural productivity within the management resources of the individual peasant farm in many African and Asian countries cannot have the same effect in an economy which is not technically backward. Nor would it be practical or necessary for a government department to attempt to duplicate the technical services and organisational expertise already available in the estate sector for an acreage equivalent to half a dozen of the larger estates, but which is scattered all over the Island. Not only would this be difficult, it would also be costly.

The larger size of the production units of the estates does not correspond, in Mauritius, to the optimum size of management unit for organising labour in the production process. This size, under present circumstances, is some tens or at most hundreds of arpents in Mauritius; it can even be less but not so small as to constitute less than a full time occupation for the farm operator. It is unnecessary, in order to attain levels of agricultural productivity close to the maxima which can be reached in the present state of knoweldge, for large production units actually to own the land and to be in direct control of the cultivation of the fields; the existence of such units covering more than half the cultivated acreage results in the technical expertise and organisational ability in the agricultural sector on the Island being for the greater part confined to production on the large units, and not being available to agriculture on the Island as a whole.

To make the maximum use of the land resources of the Island it will be necessary, as a long term programme, to divorce the technical and organisational expertise at present at the disposal of the large estates from the actual ownership and cultivation of land in order to make it available, on a commercial basis, to agriculture in Mauritius as a whole.

(d) Forestry and Fibre Products

At present the Crown forests are yielding some 130,000 cubic feet of timber a year (mostly softwoods) and privately owned plantations perhaps another 30,000 cubic feet. Imports of sawn timber are around 300,000 cubic feet a year, mostly from Malaysia. About 65,000 cubic feet of poles are cut each year on the state owned plantations and a further 35,000 cubic feet on privately owned land. The yield of fuelwood from Crown lands is around 50,000 cordes* a year and that from privately owned land perhaps a further 5,000 cordes, equivalent to 2½ million cubic feet in all.

Valuing timber and poles at an average of one Rupee a cubic foot and fuelwood at Rs 5 a corde, the value of forestry products obtained from Crown lands is roughly Rs500,000 a year and from private lands Rs 100,000. The value of actual sales from Crown lands is half

* a corde is equivalent to approximately 50 cubic feet of roundwood.

this amount. Including value added in sawmilling and handicrafts based on forest products, such as rattan and vacoas* ware, the total output of forest produce is around Rs. 1 million a year.

Pines are planted in Mauritius on a 25 year cycle. Most of the return, Rs. 6,000 per acre, accrues at the end of the cycle, when the area is clearfelled for replanting. Over the entire cycle the value of the output works at an average of Rs. 250 an acre per year.

The principal value of forestry in Mauritius is in conserving the soil and, more particularly, the water resources of the Island and in providing the needs of fuel wood and poles. The highly labour intensive nature of a reafforestation programme offers an opportunity of capitalising the present abundance of labour by turning it into a capital asset at little cost other than the labour cost.

The production of aloe fibre (Furcraea gigantea) was cut back to 1,300 metric tons a year in 1968 and 1969, enabling the government sack factory to reduce its stocks to 200 tons. The present level of production is around 70,000 tons of leaf, which, at an into-mill price of Rs. 15 a ton, gives a total value of Rs. 1 million. Value added in processing is a further Rs. 1 million.

At the present level of production, the cutting and collection of aloe leaf requires around 100,000 man/days. The fibre mills employ some 600 persons and a further 425 are employed in the sack factory.

The economics of fibre production and those of the sack factory are closely interlinked. The prices at which Mauritius hemp could be sold as such on export markets do not and are unlikely again to cover the costs of cutting, transportation and processing the leaf. Up to 1968 the sugar industry was the principal outlet for the products of the sack factory. The requirements of the industry for sugar sacks have been substantially reduced from 1970, and are likely to virtually disappear altogether over the next few years. The bulk of the output of the sack factory is now being exported.

There are good prospects that the factory will be able to expan expand its sales further, principally on export markets, and further

* Pandanus utilis

diversify its production. There can, therefore, be expected to be a continuing demand for locally produced fibre, particularly as the costs of fibre production are being brought down through more efficient decortication.

The costs of establishing aloe plantations are almost wholly the labour input. Here again there is an opportunity for capitalising the present abundance of labour by establishing plantations on land which has no alternative use, thereby reducing cutting, collecting and transportation costs.

(e) Livestock

In contrast to crop production, livestock production in Mauritius has remained technically backward. The industry makes excellent use of resources which are to all intents and purposes free goods, such as cane tops and fodder grasses, transfers fertility from waste land to land under intensive cultivation and makes virtually no demands on scarce resources such as land and capital. Output per animal and returns to labour are, in consequence, correspondingly low.

Apart from milk herds on some of the sugar estates, a few beef herds and some commercial poultry units, livestock production on the Island of Mauritius is a part-time occupation. There are some 20,000 cattle owners with one or two and rarely more than three animals each; goat owners usually have two or three goats; the average number of birds per household engaged in poultry keeping is seven.

Average milk yield are $4\frac{1}{2}$ litres a day per cow in milk. With an average of one cow or heifer aged two years or over per cattle owner, the income from milk, at 1,000 litres a year (including household consumption) and 35 cents a litre is Rs. 350 a year. This is one-eighth of the average income of cow keeping households. For a cattle owning household with one cow and followers, the members of the household spend over 50 hours a week between them in fodder collection, milking and related chores. Allowing for sales of stock and farmyard manure and deducting cash expenses and notional interest on capital employed, returns to labour in cow keeping are equivalent to 30 cents a litre of milk sold or consumed in the household. With an average

labour input of 9 man/hours (or woman/hours) per gallon of milk, this amounts to Re 1 per eight hour day. Returns to labour in goat-keeping work out at about 50 cents per eight hour day.

Total milk production on the Island is 20 million litres a year, 45% of the aggregate consumption of fresh, dried and condensed milk. At producer prices the value of milk production is Rs. 7 million a year.

The production of meat (excluding poultry) from local animals is 2,000 tons carcass weight worth Rs. 5 million at producer prices. This is one-third of the total consumption of 6,000 tons at fresh, chilled or frozen meat.

The balance of the beef, goatmeat and mutton is imported as live animals from Madagascar, and Australia and as meat from Australia and Africa. The Island of Rodrigues supplies the balance of the market for fresh pork in Mauritius.

The value of poultry and egg production is probably around Rs. 10 million, of which Rs. 2.5 million is from commercial broiler production.

Assuming that the consumption of livestock products grows by 5% a year, it would not be unrealistic for livestock production to double over the next ten years, to supply two-thirds of the domestic market. This could only come about, however, through a shift in livestock production from a very part-time occupation to a full-time occupation with a productivity of labour comparable to that in other labour intensive sectors of the economy.

As livestock is the marginal economic activity in livestock keeping households, no significant increase in output can be expected under present systems of management in response to an increase in demand resulting from higher consumer incomes. Increased output would, under present systems of management, require greater labour inputs, and these would not be forthcoming if there were increased employment opportunities elsewhere in the economy. A higher output per person engaged in the livestock industry would involve additional non factor

costs, particularly for purchased feeds. In the case of milk at any rate this is bound to be reflected in higher costs per litre. However, with somewhat higher consumer incomes among the poorest sections of the population and a marked consumer preference for fresh milk, a higher output would be absorbed even at somewhat higher prices, particularly if sold in a more hygienic form.

In a country with strictly limited land resources for grazing or cheap fodder production (other than by-products from crop production or food processing) with an abundant labour supply and a comparatively low income market, there is a distinct comparative advantage in livestock production with small stock, in particular poultry, which are efficient converters of feed into livestock products. Local production meets virtually all requirements for pountry and eggs at present. The demand for pork is met by the combined local and Rodriguan production. However, the prices of both poultry and prok are substantially higher than for other meats. There is scope therefore for increasing poultry, pig and rabbit production, to meet an expansion in the demand for livestock products in general. Also changes in relative prices through a reduction in costs and in consumer prices in the case of pork can encourage the production of these meats, while long term beef prices can be expected to increase.

One of the ways to increase livestock production in Mauritius is to develop full-time, mostly small-scale, livestock enterprises based on a combination of dairying and small stock, in order to make the fullest use of the capital and feed resources and labour skills available to the enterprise. Some 10,000 such enterprises with a net output of Rs. 20 million a year could be established over the next four years. The principal requirements for such a programme are organization and initial supply of livestock feed below cost to small producers.

The possibilities of developing land not suitable for cultivation for grazing and the most suitable management techniques for raising male calves and surplus female calves for beef and for breeding deer for venison production are under investigation.

(f) Fisheries

The landed value of the Mauritius fish catch plus the c.i.f.

value of imported fish products is Rs 10½ million a year. Of this sales of iced and frozen fish in Mauritius and Reunion by the two companies operating on the St. Brandon Islands and the Nazareth Banks account for Rs 2 million; salt fish from St. Brandon for Rs ½ million; Rodriguan salt fish and dried octopodes for a further Rs ½ million; the wholesale value of the Mauritius lagoon fisheries for about Rs 2 million; and imports, mostly South African canned pilchards, South African salted snoek and Indian bomblas, for Rs 5½ million.

In terms of fresh weight the consumption of fish on the Island of Mauritius is 8,000 tons a year. The catch of the demersal fisheries on the Cargados Carajos shoals and the Nazareth banks is 2,000 tons; the Rodrigues catch of fish and octopodes, excluding local consumption, 600 tons; and that of the Mauritius shore based fisheries between 1,000 and 2,000 tons.

Consumer expenditure surveys indicate that, if consumer income rises by two-thirds over the next ten years, which would follow from the anticipated increase in employment alone, without allowing for any substantial increase in earnings per person employed, the demand for fish could be expected to increase by 45%. The consumption of fish in Mauritius could then be expected to reach 12,000 tons, in terms of fresh weight, by 1980. Allowing for imports of around 3,500 tons a year and an increase in the supply of fish and octopodes from Rodrigues to 1,500 tons a year in terms of fresh weight, which would seem technically and economically feasible, the output of the Mauritius based fisheries for the domestic market would need to increase to 7,000 tons. As there is only limited scope for increasing the catch of the shore based fisheries, the white fish catch of the deep sea fisheries would need to increase by 2½ times to 5,000 tons a year. This should not present any particular technical problems, nor should it present insuperable financial problems, if the industry is not forced to sell at below cost and if there is a certain degree of rationalisation of production.

Mauritius is the main base for the pelagic fisheries (mostly tuna) in the Western Indian Ocean, at present being operated by

Japanese, Chinese (Taiwan), Malayan and South Korean vessels. An increase in the fishing effort in recent years has not resulted in increased catches; Mauritius, has, however, already moved into the tuna fisheries and there is scope for acquiring an increasing share of the existing fisheries, in view of the relative advantage of operating in the Western Indian Ocean from Mauritius, instead of from ports in the Far East.

Catching tuna is only marginally profitable; the profits are to be made rather in buying and selling and processing tuna. Here again Mauritius is acquiring a modest share in the economic gains to be made from the tuna fisheries in the Western Indian Ocean.

In the shore-based fisheries the economic gains [illegible] in drastically reducing the fishing effort. There has been no increase in the catch of the lagoon fisheries with the increase in the fishing effort over the last decade or so; on the contrary there would appear to have been some decline in the total catch. Going further out to fish would only improve the situation slightly. The shelf drops away quite steeply a little way beyond the reefs and beyond that there is nothing to be caught except a few sharks.

There are 3,500 fishermen registered with the Ministry of Agriculture and the average productivity of labour in the lagoon fisheries is Rs 50 a month at the most. There is scope for increasing employment and incomes at little cost in capital investment in fish farming, oyster culture, crabs and camarons and in fresh water fisheries. The main increase in productivity must, however, come from taking fisherman out of the industry, which is to say creating employment opportunities elsewhere in the economy.

(g) Manugacturing

(i) Agricultural Processing Industries

No increase in sugar milling capacity will be required to handle the increases in cane production which can be expected to take place over the next ten years. Value added in sugar milling will increase more than proportionately to the value of the sugar processed, since there will be a less than proportionate increase in non-factor

costs (other than, of course, sugarcane). Further gains to the economy can be achieved by reducing costs of production in sugar milling by further concentrating milling in fewer and larger mills. This will reduce employment in the industry somewhat, since a reduction in costs of production, other than labour costs, also means reduced labour requirements per ton of sugar milled. This reduction in employment would not, however, be significant in relation to the number of employment opportunities that will need to be created in the manufacturing sector of the economy as a whole. However, any rationalization programme in the sugar industry will have to be carefully worked out and phased in the light of other job opportunities that are created.

Manufacturing capacity for tea will need to be expanded to handle the increased supply of leaf. Here too the economies of scale from concentrating processing in a few large units are considerable.

(ii) Food, Drink and Tobacco Industries

The gross output of the food, drink and tobacco industries at ex-factory prices (excluding indirect taxes) is currently around Rs 60 million a year, of which the direct import content is Rs 25 million. Value added in processing is approximately Rs 25 million and employment 2,500.

The food processing industries producing for the domestic market consist of a vegetable oil refinery, a margarine factory, bakeries and manufacturers of biscuits, confectionery, ice cream etc. The gross value of the output of these industries at ex-factory prices is over Rs 30 million. Apart from wheat flour there is little further scope for an expansion of the food processing industry on the basis of imported foodstuffs. Imports of processed foods other than flour amounted to Rs 23 million in 1969, mostly processed livestock products and tinned fish. The output of the food processing industry can be expected to expand in line with the demand for food in general, with, at Mauritian level of income, only a moderate shift in demand to more highly processed foods.

The market for bottled or canned soft drinks in Mauritius is Rs 7½ million a year and for alcoholic drinks Rs 17 million at

ex-factory or import prices, excluding duties which amount to a further Rs. 20 million. Of the total sale value of Rs. 25 million at ex-factory or import prices, factor earnings in Mauritius and the cost of local materials and services account for Rs. 15 million, the import content of local products amounts to Rs. 6 million and Rs. 4 million of alcoholic drinks and fruit juice are imported. Value added in the industry is Rs. 10 million and employment a little over 1,000.

The market for cigarettes is around Rs. 30 million a year at ex-factory or import prices, of which, over Rs. 15 million are excise and import duties. 90% of the tobacco smoked in Mauritius is local leaf. Tobacco consumption in Mauritius is high in relation to income - 1½ million cigarettes a day - and not particularly responsive to changes in consumer income. The tobacco manufacturing industry employs between 300 and 400 workers and a further 600 people are engaged in growing tobacco.

Taking into account the fact that the demand for alcoholic beverages, and presumably also bottled soft drinks, in Mauritius is highly responsive to changes in income, the output of the food processing, drinks and tobacco industries as a whole may be expected to approximately double over the next decade. These are, however, industries with a high labour productivity, and increased output in this sector will not have an important employment effect.

(iii) Other Manufacturing Industries

Excluding processed foods, bottled drinks and cigarettes, the market for manufactures in Mauritius is around Rs. 300 million a year, at ex-factory or c.i.f. prices. Of this sales by establishments employing ten or more persons account for Rs. 80 million and the products of the artisanat for about Rs. 15 million.

With an increase in total employment of two thirds over the next decade, even with only a moderate increase in earnings per person employed, the market for manufactures may be expected to increase by about 90%. The market for the output of the present larger manufacturing establishments, other than the food, bottled drinks and tobacco industries, might then grow to Rs. 150 million. If there is

only a moderate increase in labour productivity this would mean an increased employment of 6,000 persons. Chemical fertilisers are about to be added to the present array of import substitution industries and other possible import substitution industries which might be established include flour milling, paper and paper products and cement. If these projects come to fruition this might raise the gross output of manufacturing establishments producing for the domestic market, other than the food, tobacco and drinks industries, to around Rs. 250 million by 1980. Due to the capital intensive nature of these industries this would still not increase employment in large manufacturing establishments producing for the domestic market by more than 7,500 over the next ten years.

Allowing for a doubling in employment in the food, drink and tobacco industries, this means that 25,000 jobs will have to be created over the next ten years in manufacturing activities for overseas markets. The existing industrial structure does not provide a base for a substantial and quick break-through into export markets. This can only be brought about, on the scale and at the speed that is required, through the establishment of large scale foreign trade operations, involving manufacturers with established products and markets, which are completely or partly carried out in Mauritius. Such operations may cover a wide range of activities, from the complete manufacturing of export products to the manufacture under subcontract of components or to the stocking and regional distribution of products, combined with the further processing or manipulation of these products.

The attraction of Mauritius for large scale operations of this type are the combined advantages of an adaptable and inexpensive labour force and a long established, experienced business community, which is in a position to provide partnerships for foreign investors, local management, supporting services and materials. This combination of comparative advantages in production for the world market is virtually unique for a developing country.

The institutional incentives that are required to bring about this development are those which emphasise and facilitate the

utilisation of these basic advantages, by reducing as far as possible administrative control and red tape. Such a policy is already being implemented through the introduction of the Export Processing Zone facilities, to which may be added the facilities of geographical free zones. The added advantages of freedom of running a business in a manner best suited to the enterprise and flexibility of operations combine particularly well with the advantages for this type of industrial growth already inherent in Mauritius. Other incentives will primarily need to aim at removing specific constraints, for instance training labour to meet the requirements of specific enterprises, the leasing of factory buildings and measures to reduce transport costs to the enterprise.

In order to bring about this development it will be necessary to actively promote Mauritius as a base for manufacturing and other activities connected with foreign marketing operations. After identifying products and operations which lend themselves to this type of development and identifying potential markets, direct proposals will need to be made to selected business concerns whose participation in this development would be desirable from the point of view of the Mauritius economy. A confident policy of strict selectivity is essential both in order to promote co-operation with foreign firms rather than exploitation and to maximise the bargaining power of Mauritius.

The following principal norms will be used in the selection of projects to be promoted:

1. Maximising Employment.

   This does not necessarily mean an exclusive emphasis on labour intensive projects. The adaptability of Mauritian labour in the industrial field is likely to be as strong an incentive to entrepreneurs to invest in Mauritius as the reasonably low labour cost. This should indeed be promoted as a principal asset of Mauritius in attracting investment in manufacturing industries. This may attract industries with advanced technological methods and a relatively low absorbtive capacity for labour in relation to the capital investment. This type of industry may, however, have susbstantial indirect employment

creating effects. There are also possibilities for such industries to choose, to some extent, more labour intensive technologies even in advanced technological processes.

The policy of maximising employment can thus be achieved through directly labour intensive projects, through the substitution of labour intensive for more capital intensive processes in technologically advanced industries and through the indirect employment creating effects in linking new enterprises with existing commercial, industrial and service concerns.

2. Enforcement of strict export performance norms.

As a general principle wholly export oriented projects, with well established, proven export markets, will be selected. It may, of course, be in the interests of the national economy to permit and even request sales to the local market by basically export industries. This applies in particular to commodities which would otherwise be imported or which constitute inputs in other local industries. If, in the latter case, the industry using these inputs is itself an export industry, the permissible proportion of local sales may be considerable. In other cases the proportionof the output sold on the local market should be negligible, considering the desirable type and scope of the new enterprises to be established in Mauritius and the limitations of the local market.

3. Preference will be given to industries using local raw materials, local packaging materials or components or which, while using wholly imported materials, produce commodities with a high value in relation to their weight and volume.

4. Initially preference will be given to industries with low or moderate demands on infrastructure facilities, in particular electricity and water. After such an initial period the extent of the incentives granted to newly established enterprises will be determined in relation to the demands made by the enterprise on these facilities.

5. Preference will be given to enterprises with ample financial resources of their own and hence with reasonable demands on

local public or private financing.

Studies to determine the products, processes, markets and manufacturers which may be suitable for these operations are being made and will be pursued in collaboration with the Mauritian business community. Other essential studies relate to the additional demands on and cost of the infrastructure services that will need to be provided; an analysis of the goods and services at present available as inputs in new industrial ventures and their potential for expansion in relation to the development which is planned to take place; a survey of the incentives that may be offered to prospective investors, geared to the planned type of operations and to the cost of these incentives to the economy, having regard to the need for a reasonable rate of return from economic activities to state revenues, to the cost of the economic infrastructure and to loan servicing which this cost would involve.

A phased plan for the provision of infrastructure, incentives, public financing services and other facilities will be formulated in a manner which will demonstrate the economic feasibility of the development plan as a whole. This will be necessary in order to obtain the capital required for the public investments that will be needed in order to carry out the development plan.

By adequately publicising the development plan, including admission policies for new investors and expected performance norms, it will be shown to prospective investors that the development plan provides for all the elements needed for them to undertake commercially profitable projects.

Other essential elements in plan implementation will be the provision by Government of a certain proportion of long term finance, in order to enable Government to translate the development into controlled industrial growth and the formulation of trade policies in support of the industrial activities to be undertaken.

(h) Invisible Exports

Invisible export earnings have doubled over the last four years and reached Rs. 110 million, excluding investment income, in 1969.

The greater part of this - Rs 60 million - is derived from the operation of Mauritian registered shipping vessels and vessels chartered by Mauritian registered companies and from the supply of bunker oil and other goods and services to foreign shipping at Port Louis.

Disbursements by foreign shipping at Port Louis doubled between 1966 to 1968 to over Rs 30 million. This was, of course, mainly the effect of the greater use of the Cape route to India, the Far East and Australia as the result of the closure of the Suez Canal. It would seem that the shipping industry has to some extent adjusted itself to the use of the Cape route and that, although a re-opening of the Suez Canal would have some negative effects, Mauritius will remain on or near to the main sea route to the Far East and Australia. This puts Mauritius into a favourable position for developping the handling, manipulation and further processing of goods from industrialised countries for further distribution by air to regional markets.

Sea transportation costs may constitute a serious constraint to the establishment of manufacturing and other facilities for export in Mauritius. For this reason it may be necessary to offer, as an incentive, air freight facilities at favourable rates through a Mauritian owned and operated air freight organisation. Initially the rates required for this purpose may not be economic and may necessitate subsidies from the Government. However, the offer of large scale air freight facilities from Mauritius is likely to be attractive to suppliers of goods to African and Indian Ocean destinations, who could use Mauritius as a point of transhipment in mixed transportation involving fast liner services and air freight, on through bills of lading. These prospects, which may lead to considerable foreign exchange earnings - apart from contributing to the financing of air freight services at preferential rates offered for commodities processed in Mauritius - will be studied and pursued.

The expenditure by foreign airline companies, of foreign governments and their staffs and of visitors to Mauritius is estimated at Rs 45 million in 1969.

Expenditure by foreign airlines in Mauritius reached Rs. 13 million in 1969, of which Rs. 2½ million on fuel, Rs. 1 million on landing fees and other charges at Plaisance airport and Rs. 9½ million on other payments in Mauritius with respect to airline operations.

The number of visitors coming to Mauritius has been rising sharply in the last two years to over 20,000 a year and expenditure by visitors is estimated to have risen to Rs. 18 million in 1969 and Rs. 24 million in 1970. Expenditure on hotel bills and other accommodation charges averages Rs. 60 per visitor/night. The hotel industry consists of 21 hotels or boarding houses and two sets of bungalows attached to catering facilities with a total of 440 rooms and 800 beds. The industry employs a labour force of 560.

Hotel sales in 1969/70 were around Rs. 10 million. Excluding meals sold by the industry to be served on aircraft, around 40% of sales are accommodation charges, 35% are made in the dining room and 20% at the bar. Half the gross takings of the industry are spent on purchased supplies and services. The import component of purchased supplies and services is around 35% and the indirect tax element one-eighth.

Value added in the hotel industry would therefore appear to be around Rs. 5 million a year and labour productivity Rs. 9,000 a year. Salaries and wages paid and other benefits to employees average Rs. 3,000 per person employed, 17% of gross sales. The direct benefits of the hotel industry to the economy of Mauritius depend, therefore, very largely on the rate of return to capital and to whom the returns to capital accrue.

Expenditure by non-French visitors outside hotels and boarding houses would appear to be negligible - Rs. 125 per visitor. Expenditure by visitors from Reunion and Madagascar, apart from hotel and boarding house bills and rental of accommodation, appear to have averaged Rs. 350 a head in 1969.

The number of visitors coming to Mauritius, as tourists and on private or official business, and passenger operations by airlines to and in transit through Mauritius can be expected to increase quite

rapidly, though not perhaps at the same rate as in the last couple of years.

(i) Technical and Vocational Training and Emigration

The implementation of the planned development programme will require a large number of skilled workers. While some skills are already available within the country, new skills to satisfy the demand generated by the nature and type of development will have to be created. As a matter of Government policy therefore the quality and content of education in Mauritius will change, biased in favour of technical and vocational training at all levels. The plan projects therefore will lay stress and give high priority to the creation of an adequate capacity for such training. This will require considerable investment. While new capacity to create such skills is being created on an economic basis as a matter of urgency consistent with the requirements, and programmed to supply these skills as the need arises, more efficient use of the already existing skills must also be made.

The cost of creating new skills is generally high both to the Government which must provide the basic training facilities and to the industry which has to provide training in specific skills related to the technology and working practices of the individual enterprises. The benefits of this heavy investment must be economically and efficiently used for the over-all development of the economy.

Furthermore, the type of activities, particularly in industry which promise to contribute in a major way to the solution of the main problem, require a reasonable surety in the availability of the skills needed. In fact, the availability of skills and facilities for training, apart from the adaptability of our labour force, will be the main attraction for industries from abroad. Government policy therefore will ensure that maximum benefit is derived from this heavy investment in training facilities.

This will have a bearing on the emigration policy. Although some emigration may be possible, caution will have to be exercised and discriminating measures adopted. Even a modest outflow of skilled manpower would be incompatible with the over-all policy and strategy of

development adopted to solve our most pressing problem. In fact a drain of skilled manpower may constitute a distinct disincentive to rapid industrialization.

IV. ACTION PROGRAMME

The action programme to implement the development strategy outlined above is being worked out in relation to three time horizons:

1. The Second Development Decade (1970-1980) which is a long enough period for the structural changes needed in the economy for further development to take place;
2. The period of the 1971-1975 development plan, which is long enough to allow a substantial amount of progress towards the development objectives to be achieved in most fields but not so long as to make detailed projections, in particular of investment, rather speculative;
3. The immediate situation in which action is required to mop up most of the present unemployment while the creation of new long term employment opportunities is getting under way and to create the economic and social climate needed for the implementation of the development plan.

(a) Second Development Decade

The gross investment, including replacement of existing capital, required to create the employment opportunities and output outlined in the previous section is estimated at Rs. 2,600 million.

Increasing the supply of water for irrigation and for meeting industrial and household needs from 285 million cubic metres to 570 million cubic metres is expected to cost around Rs. 100 million. Land development, and other fixed investment in crop production, other than the supply of irrigation water, will cost some Rs. 200 million over the next ten years.

Investment in the further rationalisation of the sugar milling industry and in increasing tea manufacturing capacity will amount to Rs. 200 million. In the case of sugar milling much of this can be financed from funds set aside for depreciation; investment to reduce milling costs can largely be carried out instead of, and not in addition to, maintaining capacity in the existing units.

Investment in fixed assets, excluding buildings and working capital, in other manufacturing enterprises employing ten or more persons is expected to average Rs. 12,000 per workplace, making a total of Rs. 420 million over ten years. The cost of buildings is estimated at a further Rs. 6,000 per workplace, or Rs. 210 million over a ten year period.

The direct demands on infrastructure of the increased output envisaged in the commodity producing sectors will require an investment of between Rs. 500 and Rs. 600 million over the next ten years in the supply of water and power, harbour and airport facilities, communications and site development.

The annual demand for electric power in manufacturing establishments employing more than ten persons can be expected to increase by over 100 million kwh over the next ten years and total consumption for industrial and commercial use by 200 million kwh. Allowing for increased household consumption this will require an investment of around Rs 150 million.

Harbour development over the next ten years, including access roads and new through roads, is estimated to cost Rs. 130 million and that of the airport to carry the increased traffic and the new generation of subsonic jets at about Rs. 60 million. The development of telecommunications will require an investment of some Rs. 50 million over the next ten years.

The increase in total income which is expected to take place over the next ten years will allow for an investment of roughly Rs. 300 million in housing, Rs. 100 million in urban services and Rs. 100 million in roads.

Investment in other sectors would account for a further Rs. 500 million, of which Rs. 200 million in expenditure on public buildings, education, health and other social services.

Of the total investment required over the next decade, Rs.1,000 million will necessarily be in the public sector in the development of the economic infrastructure and the provision of social and administrative services.

The investment implications of the development strategy set out in the previous section are that gross annual investment will need to more than double (at 1970 prices) over the next ten years from about Rs. 150 million in 1969 to around Rs. 375 million by 1980. In relation to the anticipated growth in the total output of goods and services in the economy, this will mean an increase in the rate of investment from less than 17% of gross domestic product to over 20%. With the structural changes in the economy that will need to be brought about, the output and investment targets that are needed to achieve the objective of full employment in the second development decade are, for Mauritius, by no means unattainable.

(b) 1971-1975 Development Plan

To achieve the investment targets implied by the development strategy which is proposed in this paper, gross investment in the four years July 1971 - June 1975 will need to amount to some Rs. 800 million. This would be 30% of the total investment envisaged for the decade, with higher levels of investment in the later years of the decade, as economic development gathers momentum.

A detailed programme of public investment expenditure for the next four years is being prepared. The main projects that will need to be carried out or started in the public sector are in the first place those for the provision or expansion of the economic infrastructure necessary for increasing industrial and agricultural production and exports as well as earnings from invisible exports.

Of these water supplies are the most immediately important. The most immediate priority is increasing and rationalising the supply of water for industrial and household use. The full development of the irrigation potential of the Island will require two major irrigation projects to be undertaken, one for a part of the Northern Plains, which is considered to be of first priority, and one for the Western Coast. The further development of surface and groundwater resources for small scale irrigation schemes, which will largely have to be continued in the public sector, as these resources are beyond the confines or beyond the financial means of the individual enterprise, can be started immediately.

Apart from water, the other main limiting factor to increased output in the services provided in the public sector is electric power, where a major increase in capacity will need to take place in the plan period.

The other main public expenditure on infrastructure up to 1975 will be on the development of the harbour facilities (including access roads and new through roads), on the development of the airport to handle larger aircraft and increased traffic in both freight and passengers on site development for industries producing for exports and on telecommunications.

In agriculture, the main public sector projects apart from irrigation will be in bringing additional land under cultivation by smallholders, particularly for tea, and in land improvement on land already under cultivation by smallholders. The crucial factor in the development of the livestock industry will be the supply of feed with a high return in the value of livestock products in relation to the cost of the feed.

In both agricultural and industrial development Government will, further, have an important role in mobilising external resources for providing medium and long term finance for investment by private firms and individuals.

In public expenditure on investment in other services that will need to be provided in the public sector the main emphasis will need to be on investment which will raise the skills of the labour force.

(c) Immediate Action Programme

(i) Objectives

The 1971-1975 development plan can be expected to create an additional 60,000 permanent employment opportunities. This would by the middle of the decade, more or less mop up the back-log of unemployment and match employment creation with the number of new entrants to the labour force. What is to happen in the meantime to those who are at present unemployed and those who will be entering the labour force for whom employment opportunities will not yet have been created?

While the investment is taking place in both the private sector and in the economic infrastructure to create the employment opportunities for the existing and prospective labour force, it will be necessary immediately to create employment and incomes for that part of the present labour force not fairly continuously engaged in paid employment or in reasonably remunerative self-employment.

The immediate action programme, the "Travail pour Tous" programme, is therefore being started with three main objectives:-

1. to provide employment and incomes for those families whose breadwinners cannot immediately find work elsewhere in the economy;

2. to eliminate much of the sub-marginal employment that has grown up over the last ten years or so as the result of the excess in the growth of the labour force over the level of employment opportunities in the established fields of economic activity;

3 to capitalise the present abundance of labour (not all of it by any means unskilled) in order to create investment which will be productive but which would not ordinarily be justified in relation to the labour input required, judged by conventional investment criteria.

All incomes in Mauritius are derived from paid employment or from self-employment in the production of goods and services for sale. There is no production to speak of for the household's own subsistence requirements. Families whose breadwinners cannot immediately find work elsewhere in the economy would, in the absence of a special programme to provide work and incomes for all, have to depend for their livelihood on some form of public assistance or (for a greater part but by no means the whole of the population) on reliance on the extended family system.

Withdrawing sub-marginally employed persons from the labour market will allow other wage earners to obtain more full-time employment. Cultivators, livestock producers, fishermen, artisans and

traders, whose activities are at present only marginally remunerative, because too many people are trying to make a living out of them, could also develop their businesses as full-time occupations. This will further make it possible to dispense with measures for employing more people than are strictly necessary in both the public and private sectors. These measures are costly and reduce the capacity of both the public and the private sectors to undertake the investment and reorganisation of economic activities needed to create more employment opportunities in the future. The pressure of more people in the labour force than can be productively employed in the conventional workings of the economy is not only a social and a human problem, but is in itself also a serious impediment to the further development of the economy.

The excess labour force which cannot be productively employed in a conventional way but which is a drag on the economy can be used, and will be used in this programme, to:-

1. create investment which is immediately productive but which would not justify the labour input required if labour were a scarce factor of production;

2. create investment which will result in increased production only after some years and which would not be warranted if the labour employed could be used on more immediately productive investment projects;

3. carry out public works which will only make a limited contribution to the production of goods and services with a cash value, but which will result in a considerable improvement in the amenities available to the population.

(ii) Past Measures

Social Welfare has always been a function of the State in Mauritius and persons without other means of livelihood have in the last resort been a charge on the State. With the development of representative government after the last war, more adequate provision has been made for people without incomes or with unduly low incomes

in relation to their needs. Old age pensions were introduced which are now payable at a rate of Rs. 22 a month for everyone above the age of sixty who is not liable to pay tax. Family allowances are paid at the rate of Rs. 10 a month for every family with three or more children not having reached their 14th birthday with incomes not exceeding Rs. 225 a month. For a long time there has been a system of payments of "outdoor relief" to people without other sources of income.

The growth in the labour force in the sixties has brought about a chronic unemployment situation which could no longer be met by relief payments to those temporarily out of work and to those who, for one reason or another, were not capable of working and had no other source of income.

In 1964 Government began employing otherwise unemployed or partly employed labour as relief workers, giving them three days' work a week at a rate of Rs. 4 a day. The numbers so employed grew to over 30,000, but had to be cut back as the Government was running into a budget deficit. With the slow growth in the economy, tax revenues could only be increased by raising the rates of taxation, while the increasing expenditure on social services, education and health as well as the transfer payments already referred to, resulted in a rapid increase in government recurrent expenditure.

From October/November 1970 all relief-workers, of whom there are now around 16,000, are employed for four days a week. Those employed on the tea project (preparing land and planting tea on a project for planting 2,300 hectares of tea for cultivation by smallholders which is at an advanced stage of negotiation with a major lending agency) are working five days a week and receiving part of their wages in cash and part in food supplied by the United States under title II of Public Law 480.

(iii) Outline of T.P.T Programme

In addition to the 16,000 relief workers employed by Government on a part-time basis, there are some 20,000 men who have registered themselves with the Ministry of Labour as being unemployed. The "Travail pour Tous" programme will replace the present system of part-time relief work and eventually offer full time employment (for periods of not less than one month) for all men under the age of sixty who opt for this type of work, at the remuneration offered, in preference to employment or self-employment elsewhere in the economy.

The T.P.T. workers will be precluded, through the hours of work that they will be required to be on the job throughout the month, from undertaking other employment or much in the way of other economic activities. Workers will therefore not join the T.P.T. programme if they can follow equally remunerative occupations, even on a part-time basis, elsewhere.

The legal minimum wage for male adults in Mauritius is about Rs. 5 a day. Average returns to labour in employment and self-employment in small scale manufacturing enterprises, in what can be described as the "artisanat", are about Rs. 110 a month. Payments to T.P.T. workers will, apart from budgetary consideration, need to be below this level, since the purpose of the programme is to utilise unemployed or submarginally employed labour and not to divert labour from existing, if not particularly well-paid, jobs.

These objectives, of creating employment immediately for labour which would otherwise be wholly unproductive or sub-marginally productive and of providing at least a bare minimum income for this labour in an economy in which earnings for the majority of the labour force are quite low, can be reconciled by making a cash payment which is substantially less than can be earned in the least well paid alternative full time occupations and supplementing this by payments in kind.

(iv) Kinds and Amount of Work to be performed

The T.P.T. programme is a "package deal" which includes projects that are directly productive, indirectly productive as well as

some socially essential projects. Directly productive projects are mostly in the field of agriculture, such as tea, use of small patches of land for cultivation and tree planting, forestry, destoning of cane lands and replanting, fresh water fishponds, fodder grass, etc. The indirectly productive projects are site development for housing and industry, roads, etc. The socially beneficial projects are the construction of market halls, primary schools, health centres and other community development activities.

The extent of unemployment in Mauritius cannot be meaningfully quantified. Much of the labour force is only employed from time to time, or in very part-time employment, or is engaged in quite sub-marginal economic activities.

The number of men who will wish to avail themselves of work under the T.P.T. programme as they do not, or do not expect to obtain equally remunerative employment elsewhere in the economy, cannot be assessed in advance. Planning is on the basis that this number will initially, once the programme is in full swing, reach an average of 20,000 men a year.*

For the kinds of work that can be carried out under the "Travail pour Tous" programme, the skills required will, for the most part, be available from among the T.P.T. workers themselves. Additional technical supervision will be provided by personnel seconded from the government service or specially recruited for the purpose (in a few instances under technical assistance arrangements).

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* Women will not be eligible for the T.P.T. programme. It is expected that fewer married women will offer themselves for unskilled employment once their otherwise unemployed menfolk are working on this programme. Men over the age of 60 and juveniles under the age of 21 will not be eligible for T.P.T. work. There will be special training programmes for young men up to the age of 21.

(v) Time Schedule

The "Travail pour Tous" programme is a rationalisation, re-orientation and extension of a programme at present providing only part-time work for a limited number of otherwise unemployed workers. There will be a transition, while the first T.P.T. projects are started and other measures to relieve the unemployment situation are being phased out, beginning January, 1971.

The programme is part of the economic development plan for the first half of the Second Development Decade, intended not only to provide work and incomes for those who would otherwise be unemployed while employment opportunities in the economy catch up with the growth in the labour force, but to facilitate the economic development that is planned to take place. It is planned to last for no longer than it is needed, that is for only as long as people offer themselves for employment at a remuneration which is rather less attractive than can normally be earned in full-time employment or self-employment elsewhere in the economy.

The programme is an integral part of a development plan designed to get Mauritius out of a chronic unemployment situation that has developed over the past ten years and which would otherwise become even more acute over the next ten years.

The T.P.T. programme will wither away after a few years through the creation of employment opportunities which are at least as remunerative, including of course, public sector investment projects employing workers at the going wage-rate. The frictional unemployment which is a necessary part of any modern economy, particularly one which is undergoing rapid changes, and the hardships due to the inability of some individuals or sections of the population to participate fully in the economic activity of the country will then be dealt with through the regular social security measures which in Mauritius are already quite advanced.

(vi) The Role of Foreign Assistance

The unemployment problem in Mauritius has grown too vast to enable a programme of this kind to be financed out of recurrent revenue. Since the costs involved are largely the food consumed by the workers engaged on the programme and their families, the most suitable and readily available form of finance from external sources is food aid. Although the direct payment of part of the wages in the form of food adds somewhat to the administrative costs, this is not too great a problem on an island of the size of Mauritius. It has the important advantage that the valuation placed by the worker on the wage he receives is less than the combined cash wage and the retail value of the food issued, since he has no choice in the way he spends that part of his wages which he receives in the form of food. Work on the T.P.T. programme is thereby made less attractive than work which brings in the same total income entirely in the form of cash. This eliminates the need for a difficult and painful selection of workers who are eligible for employment on the T.P.T. programme. At the same time the real value of the payments to the worker, and, even more important, to their families, can be set at a level which corresponds to at least their basic needs.

Because of its economic structure in which wage goods, including food, have, for the most part to be imported, and a comparatively sophisticated administrative and technical capacity, the present surplus of labour in Mauritius can readily be put to useful work instead of being left to rot, if the wage goods can be supplied to finance the additional consumption of that labour. Mauritius is therefore, in a particularly favourable position to make good use of food aid. The T.P.T. programme is self liquidating as far as food aid and other financing requirements are concerned. If the immediate unemployment situation can be tackled constructively through this programme, this will allow the economic development to take place which will make it unnecessary to continue a programme for giving work and incomes to workers for whom other employment opportunities do not as yet exist.

At present both the United Kingdom and the European Economic Community are providing food aid in the form of wheat flour under the agreement reached in 1967 between North America, Britain and the E.E.C. on the marketing of cereals (grains). The U.K. contribution is Rs. 6.7 million a year, which is used for the purchase of French and Australian wheat flour and is available for spending by the Mauritius Government under its capital budget. Under the agreement with France the E.E.C. contribution in the current financial year is Rs. 1.8 million and is available for the purchase of French wheat.

For direct payments in kind to workers on public works projects the United States is making available food under Title II of Public Law 480 to enable up to 5,500 workers on public works projects (initially those employed on the tea development project) to be employed full time.

The salaries and expenses of administrative and technical staff will be met by transfers from recurrent revenue and to a small extent under technical assistance arrangements.

(vii) Priority

The immediate task, on which the success of the entire long-term development programme depends, is a constructive programme for dealing with the present unemployment situation. In the absence of such a programme the unemployment situation will persist, and probably become even more acute, calling for stopgap measures which would detract from and impede the economic development that is needed for the creation of permanent employment opportunities in both the private and the public sectors.

The T.P.T. programme is therefore the number one priority in the country's development plan.

(viii) Implementation

The "Travail pour Tous" programme will be administered by the Development Works Corporation. This will be a statutory corporation with a Board of Directors appointed by the Prime Minister. The Board will consist of Government officials as well as persons from the

private sector appointed in their personal capacity. The Board will have a General Manager and a small administrative and technical staff, partly on secondment from the government service, partly recruited for this purpose and partly obtained from abroad on technical assistance terms.

T.P.T. workers will be employees of the Corporation. The Corporation will execute certain works projects directly and will engage government departments, local authorities, non-profit making bodies and, for certain projects, co-operatives and similar associations as contractors, supplying them with both the labour and materials and where required with technical advice. Although this will not be its main function, the Corporation will also be authorised to contract for work to be undertaken abroad for private firms, foreign governments or other agencies, and to undertake work for private firms in Mauritius. T.P.T. workers engaged on such work will not receive food payments, but will be paid entirely in cash and, in the case of work undertaken in Mauritius, at a rate not less than the standard wage rate. Nor will such work be undertaken in Mauritius at less than cost. This will not preclude the Corporation from undertaking site development on land to be leased for subsequent further development by private enterprise on terms which do not cover the full costs of such development.

(ix) Costs

Roughly, the costs of the "Travail pour Tous" programme on an annual basis will be:-

	Rs. million
Cash wages of 20,000 workers	13.3
Food costs:	
import costs	10.0
handling, storage and distribution	1.4
Administration and overheads	1.4
Supplies, equipment and transport (of men and materials)	20.5
	Rs. 46.6

It is expected that external finance will be available in a form which is largely non-competitive with external finance for other types of development programmes. Apart from the direct import costs of the food, part of the direct cash costs of the labour employed might be financed through food aid which can be converted into cash. It is anticipated that the major part of the supplies and equipment needed for the T.P.T. workers to be constructively employed will be financed through aid funds which would not ordinarily be available for most of the other projects in the development plan.

While the investment is taking place in both the private sector and in the economic infrastructure to create the employment opportunities for the existing and prospective labour force, it will be necessary immediately to create employment and incomes for that part of the present labour force not fairly continuously engaged in paid employment or in reasonably remunerative self-employment.

The immediate action programme, the "Travail pour Tous" programme, is therefore being started with three main objectives:-

1. to provide employment and incomes for those families whose breadwinners cannot immediately find work elsewhere in the economy;

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3 to capitalise the present abundance of lab ur (not all of it by any means unskilled) in order to create investment which will be productive but which would not ordinarily be justified in relation to the labour input required, judged by conventional investment criteria.

All incomes in Mauritius are derived from paid employment or from self-employment in the production of goods and services for sale. There is no production to speak of for the household's own subsistence requirements. Families whose breadwinners cannot immediately find work elsewhere in the economy would, in the absence of a special programme to provide work and incomes for all, have to depend for their livelihood on some form of public assistance or (for a greater part but by no means the whole of the population) on reliance on the extended family system.

Withdrawing sub-marginally employed persons from the labour market will allow other wage earners to obtain more full-time employment. Cultivators, livestock producers, fishermen, artisans and

traders, whose activities are at present only marginally remunerative, because too many people are trying to make a living out of them, could also develop their businesses as full-time occupations. This will further make it possible to dispense with measures for employing more people than are strictly necessary in both the public and private sectors. These measures are costly and reduce the capacity of both the public and the private sectors to undertake the investment and reorganisation of economic activities needed to create more employment opportunities in the future. The pressure of more people in the labour force than can be productively employed in the conventional workings of the economy is not only a social and a human problem, but is in itself also a serious impediment to the further development of the economy.

The excess labour force which cannot be productively employed in a conventional way but which is a drag on the economy can be used, and will be used in this programme, to:-

1. create investment which is immediately productive but which would not justify the labour input required if labour were a scarce factor of production;

2. create investment which will result in increased production only after some years and which would not be warranted if the labour employed could be used on more immediately productive investment projects;

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in relation to their needs. Old age pensions were introduced which are now payable at a rate of Rs. 22 a month for everyone above the age of sixty who is not liable to pay tax. Family allowances are paid at the rate of Rs. 10 a month for every family with three or more children not having reached their 14th birthday with incomes not exceeding Rs. 225 a month. For a long time there has been a system of payments of "outdoor relief" to people without other sources of income.

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From October/November 1970 all relief-workers, of whom there are now around 16,000, are employed for four days a week. Those employed on the tea project (preparing land and planting tea on a project for planting 2,300 hectares of tea for cultivation by smallholders which is at an advanced stage of negotiation with a major lending agency) are working five days a week and receiving part of their wages in cash and part in food supplied by the United States under title II of Public Law 480.

(iii) Outline of T.P.T Programme

In addition to the 16,000 relief workers employed by Government on a part-time basis, there are some 20,000 men who have registered themselves with the Ministry of Labour as being unemployed. The "Travail pour Tous" programme will replace the present system of part-time relief work and eventually offer full time employment (for periods of not less than one month) for all men under the age of sixty who opt for this type of work, at the remuneration offered, in preference to employment or self-employment elsewhere in the economy.

The T.P.T. workers will be precluded, through the hours of work that they will be required to be on the job throughout the month, from undertaking other employment or much in the way of other economic activities. Workers will therefore not join the T.P.T. programme if they can follow equally remunerative occupations, even on a part-time basis, elsewhere.

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These objectives, of creating employment immediately for labour which would otherwise be wholly unproductive or sub-marginally productive and of providing at least a bare minimum income for this labour in an economy in which earnings for the majority of the labour force are quite low, can be reconciled by making a cash payment which is substantially less than can be earned in the least well paid alternative full-time occupations and supplementing this by payments in kind.

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The number of men who will wish to avail themselves of work under the T.P.T. programme, as they do not, or do not expect to obtain equally remunerative employment elsewhere in the economy, cannot be assessed in advance. Planning is on the basis that this number will initially, once the programme is in full swing, reach an average of 20,000 men a year.*

For the kinds of work that can be carried out under the "Travail pour Tous" programme, the skills required will, for the most part, be available from among the T.P.T. workers themselves. Additional technical supervision will be provided by personnel seconded from the government service or specially recruited for the purpose (in a few instances under technical assistance arrangements).

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The programme is part of the economic development plan for the first half of the Second Development Decade, intended not only to provide work and incomes for those who would otherwise be unemployed while employment opportunities in the economy catch up with the growth in the labour force, but to facilitate the economic development that is planned to take place. It is planned to last for no longer than it is needed, that is for only as long as people offer themselves for employment at a remuneration which is rather less attractive than can normally be earned in full-time employment or self-employment elsewhere in the economy.

The programme is an integral part of a development plan designed to get Mauritius out of a chronic unemployment situation that has developed over the past ten years and which would otherwise become even more acute over the next ten years.

The T.P.T. programme will wither away after a few years through the creation of employment opportunities which are at least as remunerative, including of course, public sector investment projects employing workers at the going wage-rate. The frictional unemployment which is a necessary part of any modern economy, particularly one which is undergoing rapid changes, and the hardships due to the inability of some individuals or sections of the population to participate fully in the economic activity of the country will then be dealt with through the regular social security measures which in Mauritius are already quite advanced.

(vi) The Role of Foreign Assistance

The unemployment problem in Mauritius has grown too vast to enable a programme of this kind to be financed out of recurrent revenue. Since the costs involved are largely the food consumed by the workers engaged on the programme and their families, the most suitable and readily available form of finance from external sources is food aid. Although the direct payment of part of the wages in the form of food adds somewhat to the administrative costs, this is not too great a problem on an island of the size of Mauritius. It has the important advantage that the valuation placed by the worker on the wage he receives is less than the combined cash wage and the retail value of the food issued, since he has no choice in the way he spends that part of his wages which he receives in the form of food. Work on the T.P.T. programme is thereby made less attractive than work which brings in the same total income entirely in the form of cash. This eliminates the need for a difficult and painful selection of workers who are eligible for employment on the T.P.T. programme. At the same time the real value of the payments to the worker, and, even more important, to their families, can be set at a level which corresponds to at least their basic needs.

Because of its economic structure in which wage goods, including food, have, for the most part to be imported, and a comparatively sophisticated administrative and technical capacity, the present surplus of labour in Mauritius can readily be put to useful work instead of being left to rot, if the wage goods can be supplied to finance the additional consumption of that labour. Mauritius is therefore, in a particularly favourable position to make good use of food aid. The T.P.T. programme is self liquidating as far as food aid and other financing requirements are concerned. If the immediate unemployment situation can be tackled constructively through this programme, this will allow the economic development to take place which will make it unnecessary to continue a programme for giving work and incomes to workers for whom other employment opportunities do not as yet exist.

At present both the United Kingdom and the European Economic Community are providing food aid in the form of wheat flour under the agreement reached in 1967 between North America, Britain and the E.E.C. on the marketing of cereals (grains). The U.K. contribution is Rs. 6.7 million a year, which is used for the purchase of French and Australian wheat flour and is available for spending by the Mauritius Government under its capital budget. Under the agreement with France the E.E.C. contribution in the current financial year is Rs. 1.8 million and is available for the purchase of French wheat.

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The salaries and expenses of administrative and technical staff will be met by transfers from recurrent revenue and to a small extent under technical assistance arrangements.

(vii) Priority

The immediate task, on which the success of the entire long-term development programme depends, is a constructive programme for dealing with the present unemployment situation. In the absence of such a programme the unemployment situation will persist, and probably become even more acute, calling for stopgap measures which would detract from and impede the economic development that is needed for the creation of permanent employment opportunities in both the private and the public sectors.

The T.P.T. programme is therefore the number one priority in the country's development plan.

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The "Travail pour Tous" programme will be administered by the Development Works Corporation. This will be a statutory corporation with a Board of Directors appointed by the Prime Minister. The Board will consist of Government officials as well as persons from the

private sector appointed in their personal capacity. The Board will have a General Manager and a small administrative and technical staff, partly on secondment from the government service, partly recruited for this purpose and partly obtained from abroad on technical assistance terms.

T.P.T. workers will be employees of the Corporation. The Corporation will execute certain works projects directly and will engage government departments, local authorities, non-profit making bodies and, for certain projects, co-operatives and similar associations as contractors, supplying them with both the labour and materials and where required with technical advice. Although this will not be its main function, the Corporation will also be authorised to contract for work to be undertaken abroad for private firms, foreign governments or other agencies, and to undertake work for private firms in Mauritius. T.P.T. workers engaged on such work will not receive food payments, but will be paid entirely in cash and, in the case of work undertaken in Mauritius, at a rate not less than the standard wage rate. Nor will such work be undertaken in Mauritius at less than cost. This will not preclude the Corporation from undertaking site development on land to be leased for subsequent further development by private enterprise on terms which do not cover the full costs of such development.

(ix) Costs

Roughly, the costs of the "Travail pour Tous" programme on an annual basis will be:-

	Rs. million
Cash wages of 20,000 workers	13.3
Food costs:	
import costs	10.0
handling, storage and distribution	1.4
Administration and overheads	1.4
Supplies, equipment and transport (of men and materials)	20.5
	Rs. 46.6

It is expected that external finance will be available in a form which is largely non-competitive with external finance for other types of development programmes. Apart from the direct import costs of the food, part of the direct cash costs of the labour employed might be financed through food aid which can be converted into cash. It is anticipated that the major part of the supplies and equipment needed for the T.P.T. workers to be constructively employed will be financed through aid funds which would not ordinarily be available for most of the other projects in the development plan.